

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 7, 2005, 11:40:59 ; Search time 64.8455 Seconds
(without alignments)
1864.305 Million cell updates/sec

Title: US-10-726-721A-9
Perfect score: 1715
Sequence: 1 RGDVDDAGDCSGARYNDWSD.....VKVGKFMALAEHMFPSQE 337

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2002273 seqs, 358729299 residues

Total number of hits satisfying chosen parameters: 2002273

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_23Sep04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query | | DB | ID | Description |
|---------------|-------|-------|--------|----|----------|--------------------|
| | | Match | Length | | | |
| 1 | 1713 | 99.9 | 337 | 4 | AAG67776 | Aag67776 Amino aci |
| 2 | 1708 | 99.6 | 342 | 4 | AAB27240 | Aab27240 Human EXM |
| 3 | 1708 | 99.6 | 342 | 7 | ADJ69028 | Adj69028 Human hea |
| 4 | 1708 | 99.6 | 379 | 4 | AAU12279 | Aau12279 Human PRO |
| 5 | 1708 | 99.6 | 379 | 4 | AAB68359 | Aab68359 Amino aci |
| 6 | 1708 | 99.6 | 379 | 4 | AAM40083 | Aam40083 Human pol |
| 7 | 1708 | 99.6 | 379 | 6 | ABO17723 | Abol7723 Novel hum |
| 8 | 1708 | 99.6 | 379 | 6 | ABU80977 | Abu80977 Human PRO |
| 9 | 1708 | 99.6 | 379 | 6 | ABU66677 | Abu66677 Human PRO |

| | | | | | | | | |
|----|------|------|-----|---|----------|----------|-----------|-----|
| 10 | 1708 | 99.6 | 379 | 6 | ABU59758 | Abu59758 | Novel | sec |
| 11 | 1708 | 99.6 | 379 | 6 | ABO24948 | Abo24948 | Human | sec |
| 12 | 1708 | 99.6 | 379 | 6 | ABU66953 | Abu66953 | Human | sec |
| 13 | 1708 | 99.6 | 379 | 6 | ADA45735 | Ada45735 | Novel | hum |
| 14 | 1708 | 99.6 | 379 | 6 | ADA76166 | Ada76166 | Human | PRO |
| 15 | 1708 | 99.6 | 379 | 6 | ADA18816 | Ada18816 | Human | PRO |
| 16 | 1708 | 99.6 | 379 | 6 | ADA61439 | Ada61439 | Homo sapi | |
| 17 | 1708 | 99.6 | 379 | 6 | ADB19224 | Adb19224 | Novel | hum |
| 18 | 1708 | 99.6 | 379 | 6 | ADB27765 | Adb27765 | Human | PRO |
| 19 | 1708 | 99.6 | 379 | 6 | ADA86244 | Ada86244 | Novel | hum |
| 20 | 1708 | 99.6 | 379 | 6 | ADB15808 | Adb15808 | Human | PRO |
| 21 | 1708 | 99.6 | 379 | 6 | ADA47594 | Ada47594 | Human | PRO |
| 22 | 1708 | 99.6 | 379 | 6 | ADA67389 | Ada67389 | Human | PRO |
| 23 | 1708 | 99.6 | 379 | 6 | ADB30396 | Adb30396 | Human | PRO |
| 24 | 1708 | 99.6 | 379 | 6 | ADA85692 | Ada85692 | Novel | hum |
| 25 | 1708 | 99.6 | 379 | 6 | ADA96904 | Ada96904 | Human | PRO |
| 26 | 1708 | 99.6 | 379 | 6 | ADA79208 | Ada79208 | Human | PRO |
| 27 | 1708 | 99.6 | 379 | 6 | ADA87347 | Ada87347 | Novel | hum |
| 28 | 1708 | 99.6 | 379 | 6 | ADB16549 | Adb16549 | Human | PRO |
| 29 | 1708 | 99.6 | 379 | 6 | ADA91641 | Ada91641 | Novel | hum |
| 30 | 1708 | 99.6 | 379 | 6 | ADB14704 | Adb14704 | Human | PRO |
| 31 | 1708 | 99.6 | 379 | 6 | ADB18665 | Adb18665 | Novel | hum |
| 32 | 1708 | 99.6 | 379 | 6 | ADA93880 | Ada93880 | Human | PRO |
| 33 | 1708 | 99.6 | 379 | 6 | ADB19776 | Adb19776 | Novel | hum |
| 34 | 1708 | 99.6 | 379 | 6 | ADB13088 | Adb13088 | Human | PRO |
| 35 | 1708 | 99.6 | 379 | 6 | ABO43256 | Abo43256 | Novel | hum |
| 36 | 1708 | 99.6 | 379 | 6 | ADA74342 | Ada74342 | Human | PRO |
| 37 | 1708 | 99.6 | 379 | 6 | ADB24575 | Adb24575 | Human | PRO |
| 38 | 1708 | 99.6 | 379 | 6 | ADA82099 | Ada82099 | Human | PRO |
| 39 | 1708 | 99.6 | 379 | 6 | ADA75062 | Ada75062 | Human | PRO |
| 40 | 1708 | 99.6 | 379 | 6 | ADA85140 | Ada85140 | Novel | hum |
| 41 | 1708 | 99.6 | 379 | 6 | ADA84588 | Ada84588 | Novel | hum |
| 42 | 1708 | 99.6 | 379 | 6 | ADB29844 | Adb29844 | Human | PRO |
| 43 | 1708 | 99.6 | 379 | 6 | ADA80372 | Ada80372 | Human | PRO |
| 44 | 1708 | 99.6 | 379 | 6 | ADA75614 | Ada75614 | Human | PRO |
| 45 | 1708 | 99.6 | 379 | 6 | ADA46839 | Ada46839 | Human | PRO |

ALIGNMENTS

RESULT 1

AAG67776

ID AAG67776 standard; protein; 337 AA.

XX

AC AAG67776;

XX

DT 10-DEC-2001 (first entry)

XX

DE Amino acid sequence of a human FE65 binding PTB1 domain protein.

XX

KW Human; phosphotyrosine binding domain 1; PTB1 domain; FE65; beta-amyloid;

KW Alzheimer's disease; FEBP1; FE65 binding PTB1 domain protein; hnRNPL;

KW neurodegenerative disease.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers
 FT Misc-difference 305
 FT /note= "unspecified residue encoded by GNT"
 XX
 PN WO200159104-A1.
 XX
 PD 16-AUG-2001.
 XX
 PF 07-FEB-2001; 2001WO-FR000361.
 XX
 PR 10-FEB-2000; 2000FR-00001628.
 PR 18-APR-2000; 2000US-0198500P.
 XX
 PA (AVET) AVENTIS PHARMA SA.
 XX
 PI Maury I, Mercken L, Fournier A;
 XX
 DR WPI; 2001-589717/66.
 DR N-PSDB; AAH78615.
 XX
 PT Compound capable of modulating interaction between the PTB1 domain of
 PT FE65 protein and hnRNPL and/or FEBP1 protein, useful to treat
 PT neurological disorders including Alzheimer's disease.
 XX
 PS Claim 9; Page 42-43; 51pp; French.
 XX
 CC The present sequence represents a human FEBP1 (FE65 binding PTB1 domain
 CC protein). The protein is a partner of the human FE65 protein. FE65 is
 CC implicated in the production of beta-amyloid. Partners of the FE65
 CC protein thus represent novel targets for the treatment of Alzheimer's
 CC disease. Such partners include FEBP1 and hnRNPL (undefined). Compounds
 CC which are capable of at least partially modulating interactions between
 CC hnRNPL and/or FEBP1 proteins or their homologues and the phosphotyrosine
 CC binding domain 1 (PTB1) domain of FE65 are used to treat
 CC neurodegenerative diseases. In particular, they are used for treating
 CC Alzheimer's disease
 XX
 SQ Sequence 337 AA;

Query Match 99.9%; Score 1713; DB 4; Length 337;
 Best Local Similarity 100.0%; Pred. No. 2.2e-162;
 Matches 337; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

| | | | |
|----|-----|--|-----|
| Qy | 1 | RGDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRAR | 60 |
| | | | |
| Db | 1 | RGDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRAR | 60 |
| Qy | 61 | RAVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDL | 120 |
| | | | |
| Db | 61 | RAVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDL | 120 |
| Qy | 121 | GGLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDTITSLNSSVQL | 180 |
| | | | |
| Db | 121 | GGLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDTITSLNSSVQL | 180 |
| Qy | 181 | AGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR | 240 |
| | | | |

Db 181 AGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR 240

Qy 241 AQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQV 300
 |||

Db 241 AQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQV 300

Qy 301 CADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
 |||

Db 301 CADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337

RESULT 2

AAB27240

ID AAB27240 standard; protein; 342 AA.

XX

AC AAB27240;

XX

DT 27-MAR-2001 (first entry)

XX

DE Human EXMAD-18 SEQ ID NO: 18.

XX

KW Extracellular matrix and adhesion-associated protein; EXMAD; cancer;
 KW inflammation; reproductive disorder; cardiovascular disorder;
 KW immune disorder; musculoskeletal disorder; developmental disorder;
 KW gastrointestinal disorder; cell proliferation disorder.

XX

OS Homo sapiens.

XX

PN WO200068380-A2.

XX

PD 16-NOV-2000.

XX

PF 10-MAY-2000; 2000WO-US012811.

XX

PR 11-MAY-1999; 99US-0133643P.

PR 23-AUG-1999; 99US-0150409P.

XX

PA (INCY-) INCYTE GENOMICS INC.

XX

PI Bandman O, Hillman JL, Tang YT, Lal P, Yue H, Baughn MR, Lu DAM;
 PI Azimzai Y;

XX

DR WPI; 2001-007395/01.

DR N-PSDB; AAC66907.

XX

PT Isolated polynucleotide encoding extracellular matrix or adhesion-
 PT associated protein (EXMAD) useful for diagnosing, treating, or preventing
 PT disorders associated with expression of EXMAD such as proliferative,
 PT immune and genetic disorders.

XX

PS Claim 1; Page 105-106; 129pp; English.

XX

CC The present invention provides the protein and coding sequences for 25
 CC novel extracellular matrix and adhesion-associated proteins (EXMADs).
 CC These are designated EXMAD-1, EXMAD-2, EXMAD-3, EXMAD-4, EXMAD-5, EXMAD-
 CC 6, EXMAD-7, EXMAD-8, EXMAD-9, EXMAD-10, EXMAD-11, EXMAD-12, EXMAD-13,
 CC EXMAD-14, EXMAD-15, EXMAD-16, EXMAD-17, EXMAD-18, EXMAD-19, EXMAD-20,

CC EXMAD-21, EXMAD-22, EXMAD-23, EXMAD-24 and EXMAD-25. They are useful in
CC the prevention and treatment of cancers, cell proliferation,
CC cardiovascular, reproductive, immune, musculoskeletal, developmental and
CC gastrointestinal disorders and inflammation

XX

SQ Sequence 342 AA;

Query Match 99.6%; Score 1708; DB 4; Length 342;

Best Local Similarity 99.7%; Pred. No. 7.2e-162;

Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy      2 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
          |||
Db      7 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 66

Qy     62 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          |||
Db     67 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 126

Qy    122 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
          |||
Db    127 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 186

Qy    182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 241
          |||
Db    187 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 246

Qy    242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
          |||
Db    247 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 306

Qy    302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          |||
Db    307 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 342
```

RESULT 3

ADJ69028

ID ADJ69028 standard; protein; 342 AA.

XX

AC ADJ69028;

XX

DT 06-MAY-2004 (first entry)

XX

DE Human heat mitochondrial protein as a therapeutic target SeqID834.

XX

KW mitochondrial; human; screening assay; diabetes mellitus;

KW Huntington's disease; osteoarthritis;

KW Leber's hereditary optic neuropathy; LHON;

KW mitochondrial encephalopathy lactic acidosis and stroke; MELAS;

KW myoclonic epilepsy ragged red fibre syndrome; MERRF; cancer;

KW neuroprotective; nootropic; antidiabetic; anticonvulsant; antiarthritic;

KW osteopathic; ophthalmological; cytostatic.

XX

OS Homo sapiens.

XX

PN WO2003087768-A2.

```
XX PD 23-OCT-2003.
XX PF 04-APR-2003; 2003WO-US010870.
XX PR 12-APR-2002; 2002US-0372843P.
XX PR 17-JUN-2002; 2002US-0389987P.
XX PR 20-SEP-2002; 2002US-0412418P.
XX PA (MITO-) MITOKOR.
XX PA (BUCK-) BUCK INST AGE RES.
XX PI Ghosh SS, Fahy ED, Zhang B, Gibson BW, Taylor SW, Glenn GM;
PI Warnock DE;
XX DR WPI; 2003-845369/78.
XX PT Identifying a mitochondrial target for drug screening assays and for
PT treating diseases associated with altered mitochondrial function,
PT comprises detecting a modified polypeptide in a sample and correlating
PT with the disease.
XX PS Claim 1; SEQ ID NO 834; 180pp; English.
XX CC This invention relates to novel mitochondrial targets that can be used
CC for therapeutic intervention in treating a disease associated with
CC altered mitochondrial function. Specifically, it refers to a method for
CC identifying proteins of the human heart mitochondrial proteome that are
CC useful for drug screening assays, as well as therapeutic targets. The
CC present invention describes a method for identifying such proteins that
CC can be used in the treatment of various diseases associated with altered
CC mitochondrial function including diabetes mellitus, Huntington's disease,
CC osteoarthritis, Leber's hereditary optic neuropathy (LHON), mitochondrial
CC encephalopathy lactic acidosis and stroke (MELAS), myoclonic epilepsy
CC ragged red fibre syndrome (MERRF) or cancer. Accordingly, these
CC compositions have neuroprotective, nootropic, antidiabetic,
CC anticonvulsant, antiarthritic, osteopathic, ophthalmological and
CC cytostatic activities. This polypeptide sequence is a human heart
CC mitochondrial protein of the invention.
XX SQ Sequence 342 AA;

Query Match          99.6%; Score 1708; DB 7; Length 342;
Best Local Similarity 99.7%; Pred. No. 7.2e-162;
Matches 335; Conservative    0; Mismatches    1; Indels      0; Gaps      0;

Qy       2 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 61
Db              |
Db       7 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 66

Qy      62 AVQKRASPNSDDTVLSPOELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
Db              |
Db      67 AVQKRASPNSDDTVLSPOELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 126

Qy     122 GLPIVAKIILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSSVQLA 181
Db              |
Db     127 GLPIVAKIILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSSVQLA 186
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Qy 182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
 |||||
 Db 187 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 246

Qy 242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
 |||||
 Db 247 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 306

Qy 302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
 |||
 Db 307 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 342

RESULT 4

AAU12279

ID AAU12279 standard; protein; 379 AA.

XX

AC AAU12279;

XX

DT 24-OCT-2001 (first entry)

XX

DE Human PRO6007 polypeptide sequence.

XX

KW Human secretory and transmembrane; PRO; mammalian; cancer; lung; breast;
 KW prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage;
 KW ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte;
 KW A-peptide; factor VIIA; gene therapy.

XX

OS Homo sapiens.

XX

PN WO200140466-A2.

XX

PD 07-JUN-2001.

XX

PF 01-DEC-2000; 2000WO-US032678.

XX

PR 01-DEC-1999; 99WO-US028301.

PR 01-DEC-1999; 99WO-US028634.

PR 02-DEC-1999; 99WO-US028551.

PR 02-DEC-1999; 99WO-US028564.

PR 02-DEC-1999; 99WO-US028565.

PR 09-DEC-1999; 99US-0170262P.

PR 16-DEC-1999; 99WO-US030095.

PR 20-DEC-1999; 99WO-US030911.

PR 20-DEC-1999; 99WO-US030999.

PR 30-DEC-1999; 99WO-US031243.

PR 30-DEC-1999; 99WO-US031274.

PR 05-JAN-2000; 2000WO-US000219.

PR 06-JAN-2000; 2000WO-US000277.

PR 06-JAN-2000; 2000WO-US000376.

PR 11-FEB-2000; 2000WO-US003565.

PR 18-FEB-2000; 2000WO-US004341.

PR 18-FEB-2000; 2000WO-US004342.

PR 22-FEB-2000; 2000WO-US004414.

PR 24-FEB-2000; 2000WO-US004914.

PR 24-FEB-2000; 2000WO-US005004.

PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005841.
PR 03-MAR-2000; 2000US-0187202P.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 05-JUN-2000; 2000US-0209832P.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tuma D, Watanabe CK, Wood WI, Zhang Z;

XX

DR WPI; 2001-408281/43.

DR N-PSDB; AAS21351.

XX

PT Isolated , secretory and transmembrane PRO polypeptide used to detect
PT other PRO polypeptides, link bioactive molecules to cells expressing PRO
PT polypeptides, and detect the presence of mammalian tumors e.g. lung,
PT breast, prostate, cervical.

XX

PS Claim 12; Fig 216; 813pp; English.

XX

CC AAU12172-AAU12446 represent novel human secretory and transmembrane PRO
CC polypeptides. The PRO polypeptides are useful to detect other PRO
CC polypeptides, to link bioactive molecules to cells expressing PRO
CC polypeptides, to modulate biological activities of cells expressing PRO
CC polypeptides, and to detect the presence of mammalian lung, colon,
CC breast, prostate, rectal, cervical or liver tumours by comparing PRO
CC polypeptide expression in a cell sample to that in a control sample. Some
CC of the 275 sequences are also useful to stimulate the release of tumour
CC necrosis factor-alpha (TNF-alpha) from human blood, the proliferation or
CC differentiation of chondrocytes, the proliferation or gene expression in
CC pericyte cells, the release of proteoglycans from cartilage, the
CC proliferation of inner ear utricular supporting cells or of T-
CC lymphocytes, the release of a cytokine from peripheral blood monocytes
CC (PBMCs), or the proliferation of endothelial cells. Some of the PRO
CC polypeptides may modulate glucose or free fatty acid uptake by skeletal
CC muscle cells or by adipocytes; or inhibit binding of A-peptide to factor
CC VIIA. The PRO polypeptides can be used in assays to identify molecules
CC involved in binding interactions. The polynucleotides encoding PRO
CC polypeptides can be used to generate probes, antisense RNA/DNA,
CC transgenic or knock out animals and can be used in gene therapy

XX

SQ Sequence 379 AA;

Query Match 99.6%; Score 1708; DB 4; Length 379;
Best Local Similarity 99.7%; Pred. No. 8.3e-162;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy      2  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
      |||
Db     44  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103

Qy     62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
      |||
Db    104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy    122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
      |||
Db    164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223

Qy    182  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 241
      |||
Db    224  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 283

Qy    242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGE GSLFFFLKEFQVC 301
      |||
Db    284  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGE GSLFFFLKEFQVC 343

Qy    302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
      |||
Db    344  ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379
```

RESULT 5

AAB68359

ID AAB68359 standard; protein; 379 AA.

XX

AC AAB68359;

XX

DT 09-JUL-2001 (first entry)

XX

DE Amino acid sequence of a human IkappaB kinase binding protein Y2H35.

XX

KW IkappaB kinase binding protein; IKK binding protein; Y2H35; inflammation;
KW apoptosis; inflammatory mediator.

XX

OS Homo sapiens.

XX

PN US6214582-B1.

XX

PD 10-APR-2001.

XX

PF 16-NOV-1998; 98US-00193266.

XX

PR 16-NOV-1998; 98US-00193266.

XX

PA (UYN Y) UNIV NEW YORK STATE RES FOUND.

XX

PI Marcu KB;

XX
DR WPI; 2001-315460/33.
DR N-PSDB; AAF85219, AAF85220.
XX
PT Novel isolated nucleic acid molecule encoding isolated IkB kinase binding
PT protein designated Y2H35, useful as probes and primers in molecular
PT biology and biotechnology.
XX
PS Disclosure; Col 11-14; 10pp; English.
XX
CC The present sequence represents a human IkappaB kinase (IKK) binding
CC protein, designated Y2H35. Fragments of Y2H35 polynucleotide are useful
CC as probes and primers in molecular biology and biotechnology. The Y2H35
CC protein is useful for elucidating and controlling pathways leading to
CC inflammation and apoptosis, for detecting IKK complexes and modulating
CC IKK activity in cells undergoing signalling by inflammatory mediator such
CC as tumour necrosis factor alpha (TNFalpha) and interleukin-1 (IL-1), and
CC for identifying therapeutically active agents that modulate the binding
CC or interaction of Y2H35 and either IKKalpha or IKKbeta
XX
SQ Sequence 379 AA;

Query Match 99.6%; Score 1708; DB 4; Length 379;
Best Local Similarity 99.7%; Pred. No. 8.3e-162;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

| | | | |
|----|-----|--|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR | 61 |
| | | | |
| Db | 44 | GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR | 103 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 121 |
| | | | |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 163 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA | 181 |
| | | | |
| Db | 164 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRA | 241 |
| | | | |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRA | 283 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 301 |
| | | | |
| Db | 284 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 343 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| | | | |
| Db | 344 | ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 379 |

RESULT 6

AAM40083

ID AAM40083 standard; protein; 379 AA.

XX

AC AAM40083;

XX

DT 22-OCT-2001 (first entry)
 XX
 DE Human polypeptide SEQ ID NO 3228.
 XX
 KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
 KW peripheral nervous system; neuropathy; central nervous system; CNS;
 KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
 KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
 KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
 KW leukaemia.
 XX
 OS Homo sapiens.
 XX
 PN WO200153312-A1.
 XX
 PD 26-JUL-2001.
 XX
 PF 26-DEC-2000; 2000WO-US034263.
 XX
 PR 23-DEC-1999; 99US-00471275.
 PR 21-JAN-2000; 2000US-00488725.
 PR 25-APR-2000; 2000US-00552317.
 PR 20-JUN-2000; 2000US-00598042.
 PR 19-JUL-2000; 2000US-00620312.
 PR 03-AUG-2000; 2000US-00653450.
 PR 14-SEP-2000; 2000US-00662191.
 PR 19-OCT-2000; 2000US-00693036.
 PR 29-NOV-2000; 2000US-00727344.
 XX
 PA (HYSE-) HYSEQ INC.
 XX
 PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
 PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J, Zhao QA;
 PI Zhou P, Goodrich R, Drmanac RT;
 XX
 DR WPI; 2001-442253/47.
 DR N-PSDB; AAI59239.
 XX
 PT Novel nucleic acids and polypeptides, useful for treating disorders such
 PT as central nervous system injuries.
 XX
 PS Example 5; SEQ ID NO 3228; 10078pp; English.
 XX
 CC The invention relates to human nucleic acids (AAI57798-AAI61369) and the
 CC encoded polypeptides (AAM38642-AAM42213) with nootropic,
 CC immunosuppressant and cytostatic activity. The polynucleotides are useful
 CC in gene therapy. A composition containing a polypeptide or polynucleotide
 CC of the invention may be used to treat diseases of the peripheral nervous
 CC system, such as peripheral nervous injuries, peripheral neuropathy and
 CC localised neuropathies and central nervous system diseases, such as
 CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
 CC lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
 CC utilisation of the activities such as: Immune system suppression,
 CC Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
 CC and thrombolytic activity, cancer diagnosis and therapy, drug screening,
 CC assays for receptor activity, arthritis and inflammation, leukaemias and
 CC C.N.S disorders. Note: The sequence data for this patent did not form

CC part of the printed specification

XX

SQ Sequence 379 AA;

Query Match 99.6%; Score 1708; DB 4; Length 379;

Best Local Similarity 99.7%; Pred. No. 8.3e-162;

Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy      2  GDVDDAGDCSGARYNDWSDDDDDSNESKSIWYPPWARIGTEAGTRARARARARATRRR 61
          |||
Db      44  GDVDDAGDCSGARYNDWSDDDDDSNESKSIWYPPWARIGTEAGTRARARARARATRRR 103

Qy      62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          |||
Db     104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy     122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA 181
          |||
Db     164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA 223

Qy     182  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
          |||
Db     224  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283

Qy     242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
          |||
Db     284  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy     302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          |||
Db     344  ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379
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RESULT 7

ABO17723

ID ABO17723 standard; protein; 379 AA.

XX

AC ABO17723;

XX

DT 26-AUG-2003 (first entry)

XX

DE Novel human secreted and transmembrane protein PRO6007.

XX

KW Human; secreted and transmembrane protein; PRO; antiinflammatory;

KW antiarteriosclerotic; cardiant; anti-infertility; anti-HIV; cytostatic;

KW antidiabetic; gene therapy; tumour necrosis factor (TNF)-alpha release;

KW TNF-alpha release; cell proliferation; cell differentiation;

KW gene expression modulator; proteoglycan release; cytokine release;

KW tumour; inflammatory disease; organ failure; atherosclerosis;

KW cardiac injury; infertility; birth defect; premature aging; AIDS;

KW acquired immunodeficiency syndrome; cancer; diabetic complication;

KW chromosome mapping; gene mapping; pharmaceutical; diagnostic; biosensor;

KW bioreactor; tissue typing.

XX

OS Homo sapiens.

XX

PN US2003032156-A1.

XX
PD 13-FEB-2003.
XX
PF 06-MAY-2002; 2002US-00140474.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.

PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

XX

DR WPI; 2003-341980/32.

DR N-PSDB; ACD23960.

XX

Db

RESULT 8

ID ABU80977 standard; protein; 379 AA.

AC ABU80977;

DT 23-JUN-2003 (first entry)

DE Human PRO polypeptide #108.

KW Human; PRO polypeptide; secreted and transmembrane protein;
KW anti-PRO antibody; diagnostic assay; gene expression; diabetes;
KW bone disorder; cartilage disorder; rheumatoid arthritis; obesity;
KW sports injury; osteoarthritis; hyper-insulinaemia; hypo-insulinaemia;
KW hearing loss; coagulation disorder; stroke; heart attack; cardiant;
KW antidiabetic; anorectic; vulnerable; antiarthritic; osteopathic;
KW antirheumatic; auditory; cerebroprotective; angiogenic.

KW anti-PRO antibody; diagnostic assay; gene expression; diabetes;

KW bone disorder; cartilage disorder; rheumatoid arthritis; obesity;

KW sports injury; osteoarthritis; hyper-insulinaemia; hypo-insulinaemia;

KW hearing loss; coagulation disorder; stroke; heart attack; cardiant;

KW antidiabetic; anorectic; vulnerary; antiarthritic; osteopathic;

KW antirheumatic; auditory; cerebroprotective; angiogenic.

OS Homo sapiens.

PN US2003004311-A1.

PD 02-JAN-2003.

PF 19-DEC-2001; 2001US-00028072.

PR 18-JUN-1997; 97US-0049911P.

PR 26-AUG-1997; 97US-0056974P.

PR 17-SEP-1997; 97US-0059113P.

PR 17-SEP-1997; 97US-0059115P.

PR 17-SEP-1997; 97US-0059117P.

PR 17-SEP-1997; 97US-0059122P.

PR 17-SEP-1997; 97US-0059184P.

PR 18-SEP-1997; 97US-0059263P.

PR 19-SEP-1997; 97US-0059352P.

PR 19-SEP-1997; 97US-0059588P.

PR 24-SEP-1997; 97US-0059836P.

PR 17-OCT-1997; 97US-0062250P.

PR 17-OCT-1997; 97US-0062285P.

PR 17-OCT-1997; 97US-0062287P.

PR 17-OCT-1997; 97US-0063755P.

PR 24-OCT-1997; 97US-0062814P.

PR 24-OCT-1997; 97US-0062816P.

PR 24-OCT-1997; 97US-0063045P.

PR 24-OCT-1997; 97US-0063082P.

PR 24-OCT-1997; 97US-0063127P.

PR 27-OCT-1997; 97US-0063327P.

PR 27-OCT-1997; 97US-0063329P.

PR 28-OCT-1997; 97US-0063550P.

PR 28-OCT-1997; 97US-0063561P.

PR 29-OCT-1997; 97US-0063704P.

PR 29-OCT-1997; 97US-0063733P.

PR 29-OCT-1997; 97US-0063735P.

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| PR | 29-OCT-1997; | 97US-0063738P. |
| PR | 03-NOV-1997; | 97US-0064248P. |
| PR | 07-NOV-1997; | 97US-0064809P. |
| PR | 12-NOV-1997; | 97US-0065186P. |
| PR | 17-NOV-1997; | 97US-0065846P. |
| PR | 21-NOV-1997; | 97US-0066364P. |
| PR | 24-NOV-1997; | 97US-0066453P. |
| PR | 24-NOV-1997; | 97US-0066511P. |
| PR | 24-NOV-1997; | 97US-0066770P. |
| PR | 11-DEC-1997; | 97US-0069212P. |
| PR | 11-DEC-1997; | 97US-0069278P. |
| PR | 11-DEC-1997; | 97US-0069334P. |
| PR | 16-DEC-1997; | 97US-0069694P. |
| PR | 23-JAN-1998; | 98US-0072320P. |
| PR | 04-FEB-1998; | 98US-0073612P. |
| PR | 09-FEB-1998; | 98US-0074086P. |
| PR | 09-FEB-1998; | 98US-0074092P. |
| PR | 12-MAR-1998; | 98US-0077791P. |
| PR | 20-MAR-1998; | 98US-0078910P. |
| PR | 25-MAR-1998; | 98US-0079294P. |
| PR | 27-MAR-1998; | 98US-0079663P. |
| PR | 27-MAR-1998; | 98US-0079728P. |
| PR | 31-MAR-1998; | 98US-0080165P. |
| PR | 12-JUN-1998; | 98WO-US012456. |
| PR | 14-JUL-1998; | 98WO-US014552. |
| PR | 28-AUG-1998; | 98WO-US017888. |
| PR | 10-SEP-1998; | 98WO-US018824. |
| PR | 14-SEP-1998; | 98WO-US019093. |
| PR | 14-SEP-1998; | 98WO-US019094. |
| PR | 14-SEP-1998; | 98WO-US019177. |
| PR | 16-SEP-1998; | 98WO-US019330. |
| PR | 17-SEP-1998; | 98WO-US019437. |
| PR | 07-OCT-1998; | 98WO-US021141. |
| PR | 29-OCT-1998; | 98WO-US022991. |
| PR | 29-OCT-1998; | 98WO-US022992. |
| PR | 20-NOV-1998; | 98WO-US024855. |
| PR | 01-DEC-1998; | 98WO-US025108. |
| PR | 05-JAN-1999; | 99WO-US000106. |
| PR | 08-MAR-1999; | 99WO-US005028. |
| PR | 10-MAR-1999; | 99WO-US005190. |
| PR | 20-APR-1999; | 99WO-US008615. |
| PR | 14-MAY-1999; | 99WO-US010733. |
| PR | 02-JUN-1999; | 99WO-US012252. |
| PR | 01-SEP-1999; | 99WO-US020111. |
| PR | 08-SEP-1999; | 99WO-US020594. |
| PR | 13-SEP-1999; | 99WO-US020944. |
| PR | 15-SEP-1999; | 99WO-US021090. |
| PR | 15-SEP-1999; | 99WO-US021547. |
| PR | 05-OCT-1999; | 99WO-US023089. |
| PR | 29-NOV-1999; | 99WO-US028214. |
| PR | 30-NOV-1999; | 99WO-US028313. |
| PR | 30-NOV-1999; | 99WO-US028409. |
| PR | 01-DEC-1999; | 99WO-US028301. |
| PR | 01-DEC-1999; | 99WO-US028634. |
| PR | 02-DEC-1999; | 99WO-US028551. |
| PR | 02-DEC-1999; | 99WO-US028564. |
| PR | 02-DEC-1999; | 99WO-US028565. |

Qy 2 GDVDDAGDCSGARYNDWSDDDDDSNESKSIWYPPWARIGTEAGTRARARARARATRRR 61
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Db 44 GDVDDAGDCSGARYNDWSDDDDDSNESKSIWYPPWARIGTEAGTRARARARARATRRR 103

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| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 121 |
| | | | |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 163 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA | 181 |
| | | | |
| Db | 164 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 241 |
| | | | |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 283 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 301 |
| | | | |
| Db | 284 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 343 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| | | | |
| Db | 344 | ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 379 |

RESULT 9

ABU66677

ID ABU66677 standard; protein; 379 AA.

XX

AC ABU66677;

XX

DT 23-MAY-2003 (first entry)

XX

DE Human PRO polypeptide #108.

XX

KW Human; PRO polypeptide; secreted and transmembrane protein;

KW tumour; necrosis factor-alpha; TNF-alpha; blood; proliferation;

KW differentiation; chondrocyte; tumour; genetic disorder; cytostatic.

XX

OS Homo sapiens.

XX

PN US2003036180-A1.

XX

PD 20-FEB-2003.

XX

PF 09-MAY-2002; 2002US-00143114.

XX

PR 31-MAR-1997; 97WO-US005230.

PR 12-JUN-1998; 98WO-US012456.

PR 14-JUL-1998; 98WO-US014552.

PR 28-AUG-1998; 98WO-US017888.

PR 10-SEP-1998; 98WO-US018824.

PR 14-SEP-1998; 98WO-US019093.

PR 14-SEP-1998; 98WO-US019094.

PR 14-SEP-1998; 98WO-US019177.

PR 16-SEP-1998; 98WO-US019330.

PR 17-SEP-1998; 98WO-US019437.

PR 07-OCT-1998; 98WO-US021141.

PR 29-OCT-1998; 98WO-US022991.

PR 29-OCT-1998; 98WO-US022992.

PR 20-NOV-1998; 98WO-US024855.

PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
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PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
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PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
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PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
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PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
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PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.

PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

XX

DR WPI; 2003-332040/31.

DR N-PSDB; ACA03710.

XX

PT New secreted and transmembrane PRO nucleic acids, useful for gene
PT therapy, in chromosome and gene mapping, as chromosome markers, in tissue
PT typing, and in chromosome identification.

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PS Claim 12; Fig 216; 660pp; English.

XX

CC The present invention relates to the isolation of novel human PRO
CC polypeptides, and the polynucleotide sequences encoding them. The PRO
CC polypeptides are secreted and transmembrane proteins. The PRO
CC polypeptides are useful for detecting other PRO polypeptides, for linking
CC bioactive molecules to cells expressing PRO polypeptides, for modulating
CC biological activities of cells expressing PRO polypeptides, and for for
CC identifying agonists or antagonists. The PRO polypeptides are useful for
CC for stimulating the release of tumour necrosis factor (TNF)-alpha from
CC human blood, for stimulating the proliferation or differentiation of
CC chondrocytes, and detecting the presence of tumours. The polynucleotide
CC sequences encoding PRO polypeptides are useful as hybridisation probes,
CC in chromosome and gene mapping, in the generation of antisense RNA and
CC DNA, in the preparation of PRO polypeptides, for generating transgenic

CC animals or knockout animals, for the genetic analysis of individuals with
CC genetic disorders, and in gene therapy. ABU66570-ABU66844 represent the
CC human PRO polypeptides of the invention. Note: The sequence data for this
CC patent was obtained in electronic format directly from the USPTO web site
CC at seqdata.uspto.gov/psipsDIDEntry.html

XX

SQ Sequence 379 AA;

Query Match 99.6%; Score 1708; DB 6; Length 379;
Best Local Similarity 99.7%; Pred. No. 8.3e-162;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy      2  GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
          |||||||||||||||||||||||||||||||||||||||||||||||||||
Db      44  GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103

Qy      62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          |||||||||||||||||||||||||||||||||||||||||||||||||||
Db     104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy     122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
          |||||||||||||||||||||||||||||||||||||||||||||||||||
Db     164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223

Qy     182  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 241
          |||||||||||||||||||||||||||||||||||||||||||||||||||
Db     224  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 283

Qy     242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
          |||||||||||||||||||||||||||||||||||||||||||||||||||
Db     284  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy     302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          ||| ||||||||||||||||||||||||||||
Db     344  ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379
```

RESULT 10

ABU59758

ID ABU59758 standard; protein; 379 AA.

XX

AC ABU59758;

XX

DT 13-MAY-2003 (first entry)

XX

DE Novel secreted and transmembrane protein PRO6007..

XX

KW Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing;
KW cardiac insufficiency disorder; cancer; tumour; immune response;
KW adrenal cortical capillary endothelial growth; c-fos induction;
KW vascular endothelial growth factor inhibition; VEGF inhibition;
KW endothelial cell growth inhibitor; T-lymphocytes stimulation;
KW retinal neurons cell survival; rod photoreceptor cell survival;
KW retinal disorder; retinitis pigmentosum; kidney disorder;
KW mammalian kidney mesangial cell proliferation; Berger disease;
KW dermatitis; herpetiformis; Crohn's disease; chondrocyte proliferation;
KW chondrocyte redifferentiation; sports injury; arthritis.

XX
OS Homo sapiens.
XX
PN US2003017563-A1.
XX
PD 23-JAN-2003.
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PF 07-MAY-2002; 2002US-00140808.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.

PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

| | | | |
|----|-----|--|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDDSNESKSIWVYPPWARIGTEAGTRARARARARATRRARR | 61 |
| | | | |
| Db | 44 | GDVDDAGDCSGARYNDWSDDDDDSNESKSIWVYPPWARIGTEAGTRARARARARATRRARR | 103 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRD LG | 121 |
| | | | |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRD LG | 163 |
| Qy | 122 | GLPIVAKIILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR LNSSVQLA | 181 |
| | | | |
| Db | 164 | GLPIVAKIILNTRDPIVKEKALIVLNNLSVNAENORRLKVYMNQVCDTITSR LNSSVOLA | 223 |

Qy 182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
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 Db 224 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283
 Qy 242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
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 Db 284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343
 Qy 302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
 |||
 Db 344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379

RESULT 11

ABO24948

ID ABO24948 standard; protein; 379 AA.

XX

AC ABO24948;

XX

DT 05-SEP-2003 (first entry)

XX

DE Human secreted/transmembrane protein (PRO) #108.

XX

KW Human; PRO; secreted protein; transmembrane protein; tumour; cytostatic;

KW gene therapy; tumour necrosis factor-alpha; TNF-alpha; blood;

KW proteoglycan; cartilage; cytokine; peripheral blood mononuclear cell;

KW PBMC; glucose uptake; FFA; skeletal muscle cell; adipocyte cell;

KW chondrocyte cell proliferation; chondrocyte cell differentiation;

KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;

KW endothelial cell; A-peptide; factor VIIA.

XX

OS Homo sapiens.

XX

PN US2003036179-A1.

XX

PD 20-FEB-2003.

XX

PF 10-MAY-2002; 2002US-00142431.

XX

PR 31-MAR-1997; 97WO-US005230.

PR 12-JUN-1998; 98WO-US012456.

PR 14-JUL-1998; 98WO-US014552.

PR 28-AUG-1998; 98WO-US017888.

PR 10-SEP-1998; 98WO-US018824.

PR 14-SEP-1998; 98WO-US019093.

PR 14-SEP-1998; 98WO-US019094.

PR 14-SEP-1998; 98WO-US019177.

PR 16-SEP-1998; 98WO-US019330.

PR 17-SEP-1998; 98WO-US019437.

PR 07-OCT-1998; 98WO-US021141.

PR 29-OCT-1998; 98WO-US022991.

PR 29-OCT-1998; 98WO-US022992.

PR 20-NOV-1998; 98WO-US024855.

PR 01-DEC-1998; 98WO-US025108.

PR 05-JAN-1999; 99WO-US000106.

PR 08-MAR-1999; 99WO-US005028.

PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.

PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

XX

DR WPI; 2003-466355/44.

DR N-PSDB; ACD41902.

XX

PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT generating antisense RNA and DNA, and in gene therapy.

XX

PS Claim 12; Fig 216; 659pp; English.

XX

CC The invention relates to an isolated nucleic acid comprising at least 80%
CC sequence identity to a PRO (secreted and transmembrane protein) cDNA
CC comprising a nucleic acid (a) encoding a PRO polypeptide, or its
CC extracellular domain (with or without its associated signal peptide),
CC which comprises any of the 275 120-850 residue amino acid sequences,
CC given in the specification; (b) comprising any of the 275 300-3500
CC nucleotide sequences, given in the specification; or (c) comprising the
CC full-length coding sequence of the nucleotide sequences given in the
CC specification, or of the DNA deposited under any of the American Type
CC Culture Collection (ATCC) Accession Numbers listed in the specification.
CC Also included are a vector comprising the novel nucleic acid, a host cell
CC comprising the vector, producing a PRO polypeptide, the isolated PRO
CC polypeptides detailed above, a chimaeric molecule comprising the PRO
CC polypeptide of fused to a heterologous amino acid sequence, an anti-PRO
CC antibody, detecting a PRO polypeptide in a sample suspected of containing
CC the PRO polypeptide, linking a bioactive molecule to a cell expressing a

ID ABU66953 standard; protein; 379 AA.
 XX
 AC ABU66953;
 XX
 DT 27-MAY-2003 (first entry)
 XX
 DE Human secreted/transmembrane, PRO, protein SEQ ID 216.
 XX
 KW Human; secreted protein; transmembrane protein; PRO;
 KW inflammatory disease; organ failure; atherosclerosis; cardiac injury;
 KW infertility; birth defects; premature aging; AIDS; biosensor;
 KW acquired immunodeficiency syndrome; cancer; diabetic complication;
 KW bioreactor; tumour.
 XX
 OS Homo sapiens.
 XX
 PN US2003032155-A1.
 XX
 PD 13-FEB-2003.
 XX
 PF 03-MAY-2002; 2002US-00137865.
 XX
 PR 31-MAR-1997; 97WO-US005230.
 PR 12-JUN-1998; 98WO-US012456.
 PR 14-JUL-1998; 98WO-US014552.
 PR 28-AUG-1998; 98WO-US017888.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98WO-US019093.
 PR 14-SEP-1998; 98WO-US019094.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98WO-US019437.
 PR 07-OCT-1998; 98WO-US021141.
 PR 29-OCT-1998; 98WO-US022991.
 PR 29-OCT-1998; 98WO-US022992.
 PR 20-NOV-1998; 98WO-US024855.
 PR 01-DEC-1998; 98WO-US025108.
 PR 05-JAN-1999; 99WO-US000106.
 PR 08-MAR-1999; 99WO-US005028.
 PR 10-MAR-1999; 99WO-US005190.
 PR 20-APR-1999; 99WO-US008615.
 PR 14-MAY-1999; 99WO-US010733.
 PR 02-JUN-1999; 99WO-US012252.
 PR 01-SEP-1999; 99WO-US020111.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
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 PR 05-OCT-1999; 99WO-US023089.
 PR 29-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 30-NOV-1999; 99WO-US028409.
 PR 01-DEC-1999; 99WO-US028301.
 PR 01-DEC-1999; 99WO-US028634.
 PR 02-DEC-1999; 99WO-US028551.
 PR 02-DEC-1999; 99WO-US028564.
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PR 16-DEC-1999; 99WO-US030095.
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PR 20-DEC-1999; 99WO-US030999.
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PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.

PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

XX

DR WPI; 2003-331925/31.

DR N-PSDB; ACA04131.

XX

PT New secreted and transmembrane nucleic acids and polypeptides, designated
PT as PRO, useful for treating inflammation, organ failure, atherosclerosis,
PT cardiac injury, infertility, birth defects, premature aging, AIDS, or
PT cancer.

XX

PS Claim 12; Fig 216; 659pp; English.

XX

CC The invention relates to an isolated nucleic acid comprising, or which is
CC at least 80% identical to, or the full-length coding sequence of, any of
CC the 275 nucleotide sequences, encoding the corresponding PRO polypeptide
CC (one of 275 secreted or transmembrane proteins). The nucleic acid further
CC comprises the full-length coding sequence of the DNA deposited under
CC American Type Culture Collection (ATCC) accession number in a list given
CC in the specification. Also included are vectors and host cells for
CC producing PRO proteins, PRO fusion proteins, anti-PRO antibodies, PRO
CC extracellular domains and mature sequences, methods of detecting PRO
CC proteins, methods for stimulating the release of TNF-alpha (tumour
CC necrosis factor alpha) from human blood, (and the proliferation of
CC differentiation of chondrocyte cells, the proliferation of, or gene
CC expression in pericyte cells, the release or proteoglycans from
CC cartilage, proliferation of inner ear urticular supporting cells, the
CC proliferation of T-lymphocyte cells, the release of a cytokine from
CC peripheral blood mononuclear cells (PBMC), or the proliferation of
CC endothelial cells), a method for modulating the uptake of glucose or free
CC fatty acid (FFA) by skeletal muscle cells, a method for inhibiting the
CC binding of A-peptide to factor VIIA, or the differentiation of adipocyte
CC cells, a method for detecting the presence of a tumour in a mammal and an
CC oligonucleotide probe derived from any of the nucleotide sequences cited
CC above. The nucleic acids and polypeptides are useful for treating
CC inflammatory diseases, organ failure, atherosclerosis, cardiac injury,
CC infertility, birth defects, premature aging, AIDS (acquired
CC immunodeficiency syndrome), cancer, or diabetic complications. The
CC nucleic acids are useful as hybridisation probes, in chromosome and gene
CC mapping, and in generating antisense RNA or DNA. The polypeptides are
CC useful as pharmaceuticals, diagnostics, biosensors or bioreactors. Both
CC are useful in tissue typing. The present sequence represents a PRO
CC protein of the invention

XX

SQ Sequence 379 AA;

Query Match 99.6%; Score 1708; DB 6; Length 379;
 Best Local Similarity 99.7%; Pred. No. 8.3e-162;
 Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

Qy      2  GDVDDAGDCSGARYNDWSDDDDSNESKSIWYPPWARIGTEAGTRARARARARATRR 61
          |||
Db     44  GDVDDAGDCSGARYNDWSDDDDSNESKSIWYPPWARIGTEAGTRARARARARATRR 103

Qy     62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          |||
Db    104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy    122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA 181
          |||
Db    164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA 223

Qy    182  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
          |||
Db    224  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283

Qy    242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
          |||
Db    284  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy    302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          |||
Db    344  ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379
  
```

RESULT 13

ADA45735

ID ADA45735 standard; protein; 379 AA.

XX

AC ADA45735;

XX

DT 20-NOV-2003 (first entry)

XX

DE Novel human secreted and transmembrane protein PRO6007.

XX

KW Human; secreted and transmembrane protein; PRO;

KW Tumour necrosis factor alpha release; TNF-alpha release;

KW glucose uptake modulator; FFA uptake modulator;

KW cell proliferation stimulator; cell differentiation stimulator;

KW cell differentiation inhibitor; cytokine release stimulator; tumour;

KW lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;

KW cervical tumour; liver tumour; chromosome mapping; gene mapping;

KW gene therapy; chromosome identification; chromosome marker.

XX

OS Homo sapiens.

XX

PN US2003022328-A1.

XX

PD 30-JAN-2003.

XX

PF 16-APR-2002; 2002US-00123904.

XX

PR 31-MAR-1997; 97WO-US005230.

PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.

PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

XX

DR WPI; 2003-584997/55.

DR N-PSDB; ADA45734.

XX

PT Novel secreted and transmembrane polypeptide for modulating biological
PT activity of cell expressing the polypeptide, identifying agonists or
PT antagonists of polypeptide, and as molecular weight markers.

XX

PS Claim 12; Fig 216; 659pp; English.

XX

| | | | |
|----|-----|---|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDSNESKSIWVYPPWARIGTEAGTRARARARATRRARR | 61 |
| Db | 44 | GDVDDAGDCSGARYNDWSDDDDSNESKSIWVYPPWARIGTEAGTRARARARARATRRARR | 103 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRDLG | 121 |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRDLG | 163 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSRNLSVQLA | 181 |
| Db | 164 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSRNLSVQLA | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 241 |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 283 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 301 |
| Db | 284 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 343 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |

Db

RESULT 14

ID ADA76166 standard; protein; 379 AA.

AC ADA76166:

DT 20-NOV-2003 (first entry)

DE Human PRO polypeptide #108.

KW Human; PRO; secreted polypeptide; transmembrane polypeptide;

KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;

KW liver; microvascular endothelial cell; glucose; FFA;

KW skeletal muscle cell; adipocyte cell; pericyte cell;

KW inner ear utricular supporting cell; T-lymphocyte cell;

KW endothelial cell tube formation; bone disorder; cartilage disorder;

KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis

KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;

XX

OS Homo sapiens.

PN US2003073212-A1.

PD 17-APR-2003.

PF 16-APR-2002; 2002US-00123903.

DR

PR 31-MAR-1997; 97WO-US005230.

PR 12-JUN-1998; 98WO-US012456.

PR 14-JUL-1998; 98WO-US014552.

PR 28-AUG-1998; 98WO-US017888.

PR 10-SEP-1998; 98WO-US018824.

PR 14-SEP-1998; 98WO-US019093.

PR 14-SEP-1998: 98WO-US019094.

PR 14-SEP-1998: 98WO-US019177.

PR 16-SEP-1998: 98WO-US019330.

PR 17-SEP-1998: 98WO-US019437.

PB 07-OCT-1998: 98WO-US021141

PR 29-OCT-1998: 98WO-IIS022991

PR 29-OCT-1998: 98WO-IIS022992

PR 20-NOV-1998: 98WO-IJS024855

PR 01-DEC-1998: 98WO-IIS025108

PR 01 DEC 1998: 99WC 95029100.
PR 05-JAN-1999: 99WQ-US000106

PR 05 JAN 1999, 99WQ 05000100.
 PR 08-MAR-1999: 99WQ-US005028

FR 08-MAR-1999, 99WO-03005028.
BR 10-MAR-1999: 99WO-IIS005190

FR 10-MAR-1999, 99WO-US005190.
 BR 20-APR-1999: 99WO-US008615.

FR 20-APR-1999, 99WO-03008015.
BB 14-MAY-1999: 99WO-US010733

PR 14-MAY-1999, 99WO-US010733.
 PR 02 JUN 1999, 99WO-US012252.

PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111

PR 01-SEP-1999; 99WC-US020111.
PR 08-SEP-1999; 99WC-US020504.

PR 08-SEP-1999; 99WO-US020394.
PR 13-SEP-1999; 99WO-US020394.

PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.

PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

PA (GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

XX

DR WPI; 2003-687639/65.

DR N-PSDB; ADA76165.

XX

PT New isolated nucleic acid encoding a secreted and transmembrane
PT polypeptide, designated e.g. PRO1114 or PRO4978, useful in chromosome and
PT gene mapping, in generating antisense RNA and DNA, and in gene therapy.

XX

PS Claim 12; Fig 216; 659pp; English.

XX

CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating

CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.

XX

SQ Sequence 379 AA;

Query Match 99.6%; Score 1708; DB 6; Length 379;
Best Local Similarity 99.7%; Pred. No. 8.3e-162;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy      2  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 61
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      44  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 103

Qy     62  AVQKRASPNSSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    104  AVQKRASPNSSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy    122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSLNSSVQLA 181
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSLNSSVQLA 223

Qy    182  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 241
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    224  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 283

Qy    242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    284  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy    302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          ||| ||||||||||||||||||||||||||||
Db    344  ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379
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RESULT 15

ADA18816

ID ADA18816 standard; protein; 379 AA.

XX

AC ADA18816;

XX

DT 20-NOV-2003 (first entry)

XX

DE Human PRO polypeptide #108.

XX

KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; blood; chondrocyte cell; lung;
KW colon; breast; prostate; rectum; cervix; liver; tumour; cancer;
KW glucose uptake; FFA; adipocyte cell; pericyte cell; proteoglycan;
KW cartilage; inner ear utricular supporting cell; cytokine; A-peptide;

KW factor VIIA; endothelial cell.
XX
OS Homo sapiens.
XX
PN US2003054517-A1.
XX
PD 20-MAR-2003.
XX
PF 08-MAY-2002; 2002US-00141755.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.

PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX

(GETH) GENENTECH INC.

XX

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;


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GenCore version 5.1.6
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OM protein - protein search, using sw model

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Listing first 45 summaries

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SUMMARIES

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| 1 | 1713 | 99.9 | 337 | 4 | US-09-780-996A-9 | Sequence 9, Appli |
| 2 | 1708 | 99.6 | 379 | 3 | US-09-193-266-1 | Sequence 1, Appli |
| 3 | 1708 | 99.6 | 379 | 4 | US-10-140-002-216 | Sequence 216, App |
| 4 | 203.5 | 11.9 | 258 | 4 | US-10-000-489-30 | Sequence 30, Appl |
| 5 | 176 | 10.3 | 59 | 4 | US-09-513-999C-7259 | Sequence 7259, Ap |
| 6 | 109 | 6.4 | 536 | 4 | US-09-248-796A-20705 | Sequence 20705, A |
| 7 | 100.5 | 5.9 | 561 | 4 | US-09-270-767-42679 | Sequence 42679, A |
| 8 | 100.5 | 5.9 | 672 | 4 | US-09-270-767-46165 | Sequence 46165, A |
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| 10 | 100 | 5.8 | 704 | 4 | US-09-248-796A-16001 | Sequence 16001, A |
| 11 | 100 | 5.8 | 911 | 3 | US-09-356-952-6 | Sequence 6, Appli |

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| 12 | 99.5 | 5.8 | 10182 | 3 | US-09-134-001C-3159 | Sequence 3159, Ap |
| 13 | 97.5 | 5.7 | 5024 | 4 | US-09-710-279-2964 | Sequence 2964, Ap |
| 14 | 97 | 5.7 | 812 | 4 | US-09-538-092-643 | Sequence 643, App |
| 15 | 97 | 5.7 | 937 | 4 | US-09-538-092-980 | Sequence 980, App |
| 16 | 96.5 | 5.6 | 265 | 4 | US-09-248-796A-15824 | Sequence 15824, A |
| 17 | 96 | 5.6 | 682 | 3 | US-08-982-785A-9 | Sequence 9, Appli |
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| 19 | 95 | 5.5 | 712 | 4 | US-09-248-796A-19645 | Sequence 19645, A |
| 20 | 94 | 5.5 | 845 | 4 | US-09-248-796A-15394 | Sequence 15394, A |
| 21 | 92.5 | 5.4 | 286 | 4 | US-09-252-991A-23234 | Sequence 23234, A |
| 22 | 92.5 | 5.4 | 596 | 4 | US-09-752-165-2 | Sequence 2, Appli |
| 23 | 92.5 | 5.4 | 732 | 4 | US-09-614-912-24 | Sequence 24, Appl |
| 24 | 91.5 | 5.3 | 447 | 4 | US-09-205-258-408 | Sequence 408, App |
| 25 | 91.5 | 5.3 | 461 | 4 | US-10-140-002-454 | Sequence 454, App |
| 26 | 91 | 5.3 | 229 | 4 | US-09-710-279-992 | Sequence 992, App |
| 27 | 91 | 5.3 | 243 | 3 | US-09-134-001C-3587 | Sequence 3587, Ap |
| 28 | 91 | 5.3 | 560 | 2 | US-08-643-034A-2 | Sequence 2, Appli |
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| 34 | 89.5 | 5.2 | 388 | 4 | US-09-134-000C-5878 | Sequence 5878, Ap |
| 35 | 89.5 | 5.2 | 546 | 4 | US-09-907-794A-250 | Sequence 250, App |
| 36 | 89.5 | 5.2 | 546 | 4 | US-09-905-125A-250 | Sequence 250, App |
| 37 | 89.5 | 5.2 | 546 | 4 | US-09-902-775A-250 | Sequence 250, App |
| 38 | 89.5 | 5.2 | 546 | 4 | US-09-906-700-250 | Sequence 250, App |
| 39 | 89.5 | 5.2 | 546 | 4 | US-09-903-603A-250 | Sequence 250, App |
| 40 | 89.5 | 5.2 | 666 | 3 | US-08-982-785A-11 | Sequence 11, Appl |
| 41 | 89.5 | 5.2 | 666 | 4 | US-09-629-498-11 | Sequence 11, Appl |
| 42 | 89.5 | 5.2 | 780 | 4 | US-09-198-452A-920 | Sequence 920, App |
| 43 | 89.5 | 5.2 | 2954 | 4 | US-09-150-867-1 | Sequence 1, Appli |
| 44 | 88.5 | 5.2 | 453 | 4 | US-09-328-352-4242 | Sequence 4242, Ap |
| 45 | 88.5 | 5.2 | 465 | 4 | US-09-248-796A-19538 | Sequence 19538, A |

ALIGNMENTS

RESULT 1

US-09-780-996A-9

; Sequence 9, Application US/09780996A

; Patent No. 6696273

; GENERAL INFORMATION:

; APPLICANT: Maury, Isabella

; APPLICANT: Mercken, Luc

; APPLICANT: Fournier, Alain

; TITLE OF INVENTION: Partners of the PTB1 Domain of FE65, Preparation and Uses

; FILE REFERENCE: ST00004-US

; CURRENT APPLICATION NUMBER: US/09/780,996A

; CURRENT FILING DATE: 2001-02-09

; PRIOR APPLICATION NUMBER: FR00/01628

; PRIOR FILING DATE: 2000-02-10

; PRIOR APPLICATION NUMBER: US 60/198,500

; PRIOR FILING DATE: 2000-04-18

; NUMBER OF SEQ ID NOS: 11

; SOFTWARE: PatentIn version 3.2

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; SEQ ID NO 9
; LENGTH: 337
; TYPE: PRT
; ORGANISM: Homo sapiens
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; NAME/KEY: misc_feature
; OTHER INFORMATION: X=G, D, V, or A
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (305)..(305)
; OTHER INFORMATION: Xaa can be any naturally occurring amino acid
US-09-780-996A-9

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Best Local Similarity 100.0%; Pred. No. 2e-175;
Matches 337; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 2

US-09-193-266-1

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; Sequence 1, Application US/09193266
; Patent No. 6214582
; GENERAL INFORMATION:
; APPLICANT: Marcu, Kenneth B.
; TITLE OF INVENTION: Y2H35 A Strong IKK Binding Protein
; FILE REFERENCE: 178-257
; CURRENT APPLICATION NUMBER: US/09/193,266
; CURRENT FILING DATE: 1998-11-16
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 379
; TYPE: PRT

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; ORGANISM: Homo sapiens
US-09-193-266-1

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Best Local Similarity 99.7%; Pred. No. 8.3e-175;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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RESULT 3

US-10-140-002-216

; Sequence 216, Application US/10140002

; Patent No. 6725730

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.

; APPLICANT: Beresini, Maureen

; APPLICANT: DeForge, Laura

; APPLICANT: Desnoyers, Luc

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Sherwood, Steven

; APPLICANT: Smith, Victoria

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Watanabe, Colin K

; APPLICANT: Wood, William

; APPLICANT: Zhang, Zemin

; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

; TITLE OF INVENTION: ACIDS ENCODING THE SAME

; FILE REFERENCE: P3330R1C59

; CURRENT APPLICATION NUMBER: US/10/140,002
; CURRENT FILING DATE: 2002-05-06
; Prior Application removed - See Palm or File Wrapper
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; TYPE: .PRT
; ORGANISM: Homo Sapien
US-10-140-002-216

Query Match 99.6%; Score 1708; DB 4; Length 379;
Best Local Similarity 99.7%; Pred. No. 8.3e-175;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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RESULT 4

US-10-000-489-30

; Sequence 30, Application US/10000489
; Patent No. 6794363
; GENERAL INFORMATION:
; APPLICANT: Benjanin, Stephane
; APPLICANT: Tanaka, Hiroaki
; TITLE OF INVENTION: HUMAN CDNAS AND PROTEINS AND USES THEREOF
; FILE REFERENCE: 91.US6.DIV
; CURRENT APPLICATION NUMBER: US/10/000,489
; CURRENT FILING DATE: 2001-11-14
; PRIOR APPLICATION NUMBER: US 09/924,340
; PRIOR FILING DATE: 2001-08-06
; PRIOR APPLICATION NUMBER: PCT/IB01/01715
; PRIOR FILING DATE: 2001-08-06
; PRIOR APPLICATION NUMBER: US 60/305,456
; PRIOR FILING DATE: 2001-07-13
; PRIOR APPLICATION NUMBER: US 60/302,277

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; PRIOR FILING DATE: 2001-06-29
; PRIOR APPLICATION NUMBER: US 60/298,698
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: US 60/293,574
; PRIOR FILING DATE: 2001-05-25
; NUMBER OF SEQ ID NOS: 112
; SOFTWARE: JPatent
; SEQ ID NO 30
; LENGTH: 258
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SIGNAL
; LOCATION: 1..20
; NAME/KEY: UNSURE
; LOCATION: 49
; OTHER INFORMATION: Xaa = Glu, *
US-10-000-489-30
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Best Local Similarity 46.5%; Pred. No. 2e-13;
Matches 47; Conservative 19; Mismatches 22; Indels 13; Gaps 3;
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Qy      88 VEMSEKPYILEAALIALGNNAAYAFNRDIIRDLGGLPIVAK 128
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RESULT 5

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US-09-513-999C-7259
; Sequence 7259, Application US/09513999C
; Patent No. 6783961
; GENERAL INFORMATION:
; APPLICANT: Dumas Milne Edwards, J.B.
; APPLICANT: Duclert, A.
; APPLICANT: Giordano, J.Y.
; TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
; Patent No. 6783961
; FILE REFERENCE: 59.US2.REG
; CURRENT APPLICATION NUMBER: US/09/513,999C
; CURRENT FILING DATE: 2000-02-24
; PRIOR APPLICATION NUMBER: US 60/122,487
; PRIOR FILING DATE: 1999-02-26
; NUMBER OF SEQ ID NOS: 36681
; SOFTWARE: Patent.pm
; SEQ ID NO 7259
; LENGTH: 59
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-513-999C-7259
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Best Local Similarity 58.9%; Pred. No. 1.8e-11;
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Matches 33; Conservative 12; Mismatches 11; Indels 0; Gaps 0;

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RESULT 6

US-09-248-796A-20705

; Sequence 20705, Application US/09248796A

; Patent No. 6747137

; GENERAL INFORMATION:

; APPLICANT: Keith Weinstock et al

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICANS

; TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS

; FILE REFERENCE: 107196.132

; CURRENT APPLICATION NUMBER: US/09/248,796A

; CURRENT FILING DATE: 1999-02-12

; PRIOR APPLICATION NUMBER: US 60/074,725

; PRIOR FILING DATE: 1998-02-13

; PRIOR APPLICATION NUMBER: US 60/096,409

; PRIOR FILING DATE: 1998-08-13

; NUMBER OF SEQ ID NOS: 28208

; SEQ ID NO 20705

; LENGTH: 536

; TYPE: PRT

; ORGANISM: Candida albicans

; FEATURE:

; NAME/KEY: UNSURE

; LOCATION: (123)

; OTHER INFORMATION: Identity of amino acid sequences at the above locations are unknown.

US-09-248-796A-20705

Query Match 6.4%; Score 109; DB 4; Length 536;

Best Local Similarity 25.0%; Pred. No. 0.0088;

Matches 65; Conservative 35; Mismatches 84; Indels 76; Gaps 14;

```
Qy      116 IIRDLGGL-PIVAKILNTRDPIVKEKALIVLNNLSVNAEN-QRRLKVYMNQVCDDT--IT 171
          :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      243 LINDVEGISEIVLECLNDRDLIIKRKALEVSNYL-VNEDNITEVVKIMLMQLVPDNNMID 301
```

```
Qy      172 SRLNSSVQLAGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLNL--- 228
          | :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      302 DMLKLEITLKILQIASQNNYVN-----IPN-----FRWYVA-----VLKDVINLTLL 343
```

```
Qy      229 ----AENPAMTRELLRAQVPSSLGSLFNKKENK--EVILKLL--VIFENIND----- 272
          | | :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      344 PVEGATNSGLIASHIANEISTEVGKEFKNLATKVPSVRSYLLQNVVLELVQDVRLLDSSA 403
```

```
Qy      273 ----NFKW-----EENEPTQNQFGEG-----SLFFFLKEFQV 300
          :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      404 LILKDLYWILGEYISELKVTQNDGDDSDSDSDGEDAQVMVLDIDKKIKVFNTLINYQI 463
```

```
Qy      301 CADKXLGIESHHDFLVKVKV 320
          || ||: | :| :| :|
```

RESULT 7

US-09-270-767-42679

; Sequence 42679, Application US/09270767
 ; Patent No. 6703491
 ; GENERAL INFORMATION:
 ; APPLICANT: Homburger et al.
 ; TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
 ; FILE REFERENCE: File Reference: 7326-094
 ; CURRENT APPLICATION NUMBER: US/09/270,767
 ; CURRENT FILING DATE: 1999-03-17
 ; NUMBER OF SEQ ID NOS: 62517
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 42679
 ; LENGTH: 561
 ; TYPE: PRT
 ; ORGANISM: Drosophila melanogaster
 US-09-270-767-42679

Query Match 5.9%; Score 100.5; DB 4; Length 561;
 Best Local Similarity 22.1%; Pred. No. 0.077;
 Matches 46; Conservative 29; Mismatches 94; Indels 39; Gaps 4;

Qy 78 PQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFN-----RDIIRD LGGLPIVAKILNT 132
 |: :| | :|: | ||| |: | :|: | :| |||: ::|
 Db 301 PEVVQYYLSLLQSCSNPETLEAAAGAIQNLSACYWQPSIDIRATVRKEKGLPILVELLRM 360
 Qy 133 RDPIVKEKALIVLNNLSVNAENQRR LKVYMNQVCDDTITSR LNSSVQLAGLRLLTNMTVT 192
 | | | :|: | : : | :| | :
 Db 361 EVDRVVCAVATALRNLAIQDNKELIGKY-----AMRDLVQKLPS 400
 Qy 193 NEYQHMLANSISDFFRLFSAGNEETKLQVLKLLNLAENPAMTRELLRAQVPSSLGSLFN 252
 || | : : || | :|| :| || : : ||
 Db 401 GNVQHDQNTSDDTITAVLATINEVIK-----KNPEFSRSLDS---GGIDRLMN 446
 Qy 253 KKENKEVILKLLVIFENINDNFKWEENE 280
 : || :| : | : ||
 Db 447 ITRKEKYTSCVLKFASQVLYTMWQHNE 474

RESULT 8

US-09-270-767-46165

; Sequence 46165, Application US/09270767
 ; Patent No. 6703491
 ; GENERAL INFORMATION:
 ; APPLICANT: Homburger et al.
 ; TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
 ; FILE REFERENCE: File Reference: 7326-094
 ; CURRENT APPLICATION NUMBER: US/09/270,767
 ; CURRENT FILING DATE: 1999-03-17
 ; NUMBER OF SEQ ID NOS: 62517
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 46165
 ; LENGTH: 672
 ; TYPE: PRT

; ORGANISM: Drosophila melanogaster
US-09-270-767-46165

Query Match 5.9%; Score 100.5; DB 4; Length 672;
Best Local Similarity 22.1%; Pred. No. 0.1;
Matches 46; Conservative 29; Mismatches 94; Indels 39; Gaps 4;

```
Qy      78 PQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFN-----RDIIRDLGGLPIVAKILNT 132
      |: :| | |:: | |||| |: | :| : | :| |||: ::|
Db      326 PEVVQYYLSLLQSCSNPETLEAAAGAIQNLSACYWQPSIDIRATVRKEKGLPILVELLRM 385

Qy      133 RDPIVKEKALIVLNNLSVNAENQRRLLKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVT 192
      | | |::: |: : | | | :
Db      386 EVDRVVCAVATALRNLAIQDNKELIGKY-----AMRDLVQKLPS 425

Qy      193 NEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRAQVPSSLGSLFN 252
      || | : : || | :|| :| || : : ||
Db      426 GNVQHDQNTSDDTITAVLATINEVIK-----KNPEFSRSLDS---GGIDRLMN 471

Qy      253 KKENKEVILKLLVIFENINDNFKWEENE 280
      : || : : | : | : ||
Db      472 ITRKEKYTSCVLKFASQVLYTMWQHNE 499
```

RESULT 9

US-08-290-731C-14

; Sequence 14, Application US/08290731C

; Patent No. 5843646

; GENERAL INFORMATION:

; APPLICANT: BOWTELL, David Douglas Lawrence

; TITLE OF INVENTION: DNA MOLECULES ENCODING MURINE

; TITLE OF INVENTION: SON OF SEVENLESS (mSOS) GENE,

; TITLE OF INVENTION: AND mSOS POLYPEPTIDES

; NUMBER OF SEQUENCES: 15

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: SUGHRUE, MION, ZINN, MACPEAK & SEAS

; STREET: 2100 PENNSYLVANIA AVENUE, N.W.

; CITY: WASHINGTON

; STATE: D.C.

; COUNTRY: USA

; ZIP: 20037

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/290,731C

; FILING DATE: 17-OCT-1994

; CLASSIFICATION: 435

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: PCT/AU93/00068

; FILING DATE: 17-FEB-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: PL0921/92

; FILING DATE: 17-FEB-1992

; ATTORNEY/AGENT INFORMATION:

```

; NAME: KIT, Gordon
; REGISTRATION NUMBER: 30,764
; REFERENCE/DOCKET NUMBER: Q-36066
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 293-7060
; TELEFAX: (202) 293-7860
; TELEX: 6491103
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 402 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-290-731C-14

```

```

Query Match          5.8%; Score 100; DB 2; Length 402;
Best Local Similarity 22.9%; Pred. No. 0.052;
Matches 62; Conservative 36; Mismatches 77; Indels 96; Gaps 14;

```

```

Qy      70 NSDDTV-----LSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRD L 120
      || | :          | | : | | : | | : | : |
Db      155 NSPDPIIYKDELVLLLPPREIAKQLCILEFQSF SHI----- 190

Qy      121 GGLPIVAKI---LNTRDPIVKEK-ALIVLNNLSVN-----AENQRRLKV--YMNQV 165
      : : ||  ||  |  ||| :  | : |  ||          | : ||  |  |  ||
Db      191 SRIQFLTkiWDELNRFS--KEKTSTFYLSNHLVNFVTETIVQEEPRRRTNVLAYFIQV 248

Qy      166 CD-----DTITSRLNS-----SVQLAGLRLLTNMTVT----NEYQ 196
      ||          : | | |||          |  ||  || | : |          : | :
Db      249 CDYLRELN NFASLFSIISALNSSPIHRLRKTWANLNSKTLASFELLNNL TEARKNF SNYR 308

Qy      197 HMLANSI-----SDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRAQVPS 245
      | | :          : |          || : :          : : | :  : || | :
Db      309 DCLENCVLPCVPFLGVYFTD-LTFLKTGNKDN----FQNMINF DKRTKVTRILNEIKKFQ 363

Qy      246 SLGSLFNK-KENKEVILKLLVIFENINDNFK 275
      | : | : ||  | : | : : :          | | : :
Db      364 SVGYMFNPINEVQELLNEVISRERNTNNIYQ 394

```

RESULT 10

US-09-248-796A-16001

; Sequence 16001, Application US/09248796A

; Patent No. 6747137

; GENERAL INFORMATION:

; APPLICANT: Keith Weinstock et al

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICANS

; TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS

; FILE REFERENCE: 107196.132

; CURRENT APPLICATION NUMBER: US/09/248,796A

; CURRENT FILING DATE: 1999-02-12

; PRIOR APPLICATION NUMBER: US 60/074,725

; PRIOR FILING DATE: 1998-02-13

; PRIOR APPLICATION NUMBER: US 60/096,409

; PRIOR FILING DATE: 1998-08-13

; NUMBER OF SEQ ID NOS: 28208

; SEQ ID NO 16001
; LENGTH: 704
; TYPE: PRT
; ORGANISM: Candida albicans
US-09-248-796A-16001

Query Match 5.8%; Score 100; DB 4; Length 704;
Best Local Similarity 21.1%; Pred. No. 0.12;
Matches 52; Conservative 55; Mismatches 96; Indels 44; Gaps 13;

```
Qy      74 TVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRD-----LGGLPIVAK 128
      |||| :| | |||  |  :: | |:: |  :: ::|  |  :: :
Db      239 TVLS-EEAQ--LCL--KPEPGLLIRAMASIDN--PESFDV VVRGFFDLMLSHIPLDSD 291

Qy      129 ILNTR-DPIVKEKALIVLNNLSVNAEN--QRRLKVYMNQVCDDTITSRLNSSVQLAGLRL 185
      :: | | :| :: : :: : ||| |  |  : | :
Db      292 VITNRITPTDREVLIMACSKITLRKDMSLNRRLWTYF-----LGPETEHESLKA 340

Qy      186 LTNMTVTNEY--QHMLANSISDFRFLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRAQV 243
      ||  || |:: | : : : | | |::| | : | ::
Db      341 LTR---TEYFKQYVEETLINGLLAMAHSDKIELKCDAFKILLPLIMDKWEIGNVLTPKL 396

Qy      244 PSS-LGSLFNKKENKEVILKLLVIFENINDNFKW-----EENEPTQNQFGEGSLFF 293
      || | :| ::::: : |:: : : |  :::: ::| : |
Db      397 FSSFLKIAYNNRDHQDLMISASTLFDGVESIYIWSDIIGVILSDESDEEEHEF--DVVHF 454

Qy      294 FLKEFQV 300
      ||:| |
Db      455 VLKDFNV 461
```

RESULT 11

US-09-356-952-6

; Sequence 6, Application US/09356952
; Patent No. 6117663
; GENERAL INFORMATION:
; APPLICANT: Boriack-Sjodin, Ann
; APPLICANT: Margarit, S. M.
; APPLICANT: Bor-Sogi, Dafna
; APPLICANT: Cole, Philip
; APPLICANT: Kuriyan, John
; TITLE OF INVENTION: A CRYSTAL OF A RAS-SOS COMPLEX AND METHODS OF USE
; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: 600-1-228N
; CURRENT APPLICATION NUMBER: US/09/356,952
; CURRENT FILING DATE: 1999-07-19
; EARLIER APPLICATION NUMBER: 60/093,631
; EARLIER FILING DATE: 1998-07-21
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 911
; TYPE: PRT
; ORGANISM: Schizosaccharomyces pombe
US-09-356-952-6

Query Match 5.8%; Score 100; DB 3; Length 911;

Best Local Similarity 22.9%; Pred. No. 0.19;
Matches 62; Conservative 36; Mismatches 77; Indels 96; Gaps 14;

```
Qy      70 NSDDTV-----LSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDL 120
      || | :          | |:: | |::|      :|
Db      647 NSPDPIIYKDELVLLLPPREIAKQLCILEFQSFHSI----- 682

Qy      121 GGLPIVAKI---LNTRDPIVKEK-ALIVLNNLSVN-----AENQRRLKV--YMNQV 165
      : : ||  ||  | || :  |:: ||      | :|| | | ||
Db      683 SRIQFLTkiWdnlNRFSP--KEKTSTFYLSNHLVNFVTETIVQEEPRRRTNVLAYFIQV 740

Qy      166 CD-----DTITSRLNS-----SVQLAGLRLLTNMTVT----NEYQ 196
      ||          :| | ||          | ||  || |::|      : |:
Db      741 CDYLRELNNFASLFSIISALNSSPIHRLRKTWANLNSKTLASFELLNNLTEARKNFSNYR 800

Qy      197 HMLANSI-----SDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRAQVPS 245
      | | :          :|  ||::      : ::| :  :|| | :
Db      801 DCLENCVLPVFLGVYFTD-LTFLKTGNKDN----FQNMINFDKRTKVTRILNEIKKFQ 855

Qy      246 SLGSLFNK-KENKEVILKLLVIFENINDNFK 275
      |:| :||  | :|:: ::  | |::
Db      856 SVGYMFNPINEVQELLNEVISRERNTNNIYQ 886
```

RESULT 12

US-09-134-001C-3159

; Sequence 3159, Application US/09134001C

; Patent No. 6380370

; GENERAL INFORMATION:

; APPLICANT: Lynn Doucette-Stamm et al

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS

; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS

; FILE REFERENCE: GTC-007

; CURRENT APPLICATION NUMBER: US/09/134,001C

; CURRENT FILING DATE: 1998-08-13

; PRIOR APPLICATION NUMBER: US 60/064,964

; PRIOR FILING DATE: 1997-11-08

; PRIOR APPLICATION NUMBER: US 60/055,779

; PRIOR FILING DATE: 1997-08-14

; NUMBER OF SEQ ID NOS: 5674

; SEQ ID NO 3159

; LENGTH: 10182

; TYPE: PRT

; ORGANISM: Staphylococcus epidermidis

US-09-134-001C-3159

Query Match 5.8%; Score 99.5; DB 3; Length 10182;

Best Local Similarity 21.7%; Pred. No. 8.8;

Matches 53; Conservative 54; Mismatches 104; Indels 33; Gaps 9;

```
Qy      58 RARRAVQKRASPNSSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFN---- 113
      | :: : : ::|      ::| |::: |:::|  | |  | : :| |
Db      7876 RVKQIINQTSNP-----TMNPLEVERATSNVKISKDALHGERELNDNKNKSTFAVNHLDN 7930

Qy      114 -----RDIIRDLGGLPIVAKILNTRDPIVKEKAL-----IVLNNLSVNAENQRRLKVYMN 163
      :  ::  ||::: | :  | |||      | ::  :| | :  |:
```

Db 7931 LNQAQKEALTHEIEQATIVSQVNNIYN---KAKALNNDMKKLLKDIVAQQDNVRQSNNYIN 7987

Qy 164 QVCDDTITSRLNSSVQLAG--LRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQV 221
: | | : | :: | : : | |::: : |::: : | : | | |

Db 7988 E--DSTPQNMYNDTINHAQSIIDQVANPTMSHD---EIENAINNIKHAINALDGEHKLQQ 8042

Qy 222 LKLLLNLAENPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEP 281
| | | | : | | : : | |::: | : : | : : | : : | | |

Db 8043 AKENANLLIN---SLNDLNAPQRDAINRLVNEAQTREKVAEQLQSAQALNDAMKHLRNS- 8098

Qy 282 TQNQ 285
| | |

Db 8099 IQNQ 8102

RESULT 13

US-09-710-279-2964

; Sequence 2964, Application US/09710279

; Patent No. 6703492

; GENERAL INFORMATION:

; APPLICANT: KIMMERLY, WILLIAM JOHN

; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS

; FILE REFERENCE: PU3480US

; CURRENT APPLICATION NUMBER: US/09/710,279

; CURRENT FILING DATE: 2000-11-09

; PRIOR APPLICATION NUMBER: 60/164,258

; PRIOR FILING DATE: 1999-11-09

; NUMBER OF SEQ ID NOS: 4472

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 2964

; LENGTH: 5024

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence: synthetic

; OTHER INFORMATION: amino acid sequence

; FEATURE:

; NAME/KEY: MOD_RES

; LOCATION: (5024)

; OTHER INFORMATION: variable amino acid

US-09-710-279-2964

Query Match 5.7%; Score 97.5; DB 4; Length 5024;

Best Local Similarity 21.7%; Pred. No. 4.8;

Matches 53; Conservative 53; Mismatches 105; Indels 33; Gaps 9;

Qy 58 RARRAVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFN---- 113
| :: : : :: | : | |::: | : | : | | : : | |

Db 2930 RVKQIINQTSNP-----TMNPLEVERATSNVKTSKDALHGERELNDNKNKSTFAVNHLDN 2984

Qy 114 -----RDIIRDLGGLPIVAKILNTRDPIVKEKAL----IVLNNLSVNAENQRRCLKVYMN 163
: : : : | |::: | : | | | | : : : | | : | : |

Db 2985 LNQAQKEALTHEIEQATIVSQVNNIYN---KAKALNNDMKKLLKDIVAQQDNVRQSNNYIN 3041

Qy 164 QVCDDTITSRLNSSVQLAG--LRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQV 221
: | | : | :: | : : | |::: : |::: : | : | | |

Db 3042 E--DSTPQNMYNDTINHAQSIIDQVANPTMSHD---EIENAINNIKHAINALDGEHKLQQ 3096

Qy 222 LKLLLNLAENPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEP 281
 | || | : | | :: | | : : | : : | : : | | |
 Db 3097 AKENANLLIN---SLNDLNAPQORDAINRLVNEAQTREKVAEQLQSAQALNDAMKHLRNS- 3152
 Qy 282 TQNQ 285
 |||
 Db 3153 IQNQ 3156

RESULT 14

US-09-538-092-643
 ; Sequence 643, Application US/09538092
 ; Patent No. 6753314
 ; GENERAL INFORMATION:
 ; APPLICANT: Giot, Loic
 ; APPLICANT: Mansfield, Traci A.
 ; TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same
 ; FILE REFERENCE: 15966-542
 ; CURRENT APPLICATION NUMBER: US/09/538,092
 ; CURRENT FILING DATE: 2000-03-29
 ; PRIOR APPLICATION NUMBER: 60/127,352
 ; PRIOR FILING DATE: 1999-04-01
 ; PRIOR APPLICATION NUMBER: 60/178,965
 ; PRIOR FILING DATE: 2000-02-01
 ; NUMBER OF SEQ ID NOS: 1387
 ; SOFTWARE: CuraPatSeqFormatter Version 0.9
 ; SEQ ID NO 643
 ; LENGTH: 812
 ; TYPE: PRT
 ; ORGANISM: Saccharomyces cerevisiae
 ; FEATURE:
 ; NAME/KEY: misc_feature
 ; LOCATION: (0)...(0)
 ; OTHER INFORMATION: Polypeptide Accession Number YMR309C
 US-09-538-092-643

Query Match 5.7%; Score 97; DB 4; Length 812;
 Best Local Similarity 22.0%; Pred. No. 0.33;
 Matches 76; Conservative 54; Mismatches 130; Indels 86; Gaps 18;

Qy 17 DWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARRAVQKRAS--PNSDDT 74
 | ||:: | : | : | : : : | : | |||
 Db 97 DSSDEESDEEDGKKVV-----KSAKEKLLDEMVDVYNKISQAENSDDW 139
 Qy 75 VLSPQELQKV-LCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLGGLPIVAKILNTR 133
 : | : || :: : | : || || ||: ||
 Db 140 LTISNEFDLISRLLVRAQQQNWGTPNIFIKVVAQVEDAVNNTQQADLKN-KAVARAYNTT 198
 Qy 134 DPIVKEKALIVLNNLSVNAENQRRLLKVYMN--QVCDDTITSRLNSSVQLAGLRLLTNMTV 191
 ||: ||: ||: : : | : | : ||: | :
 Db 199 KQRVKK-----VSRENEDSMKFRNDPESFDKEPTADLDISA-----NGFTI 240
 Qy 192 TNEYQHMLANSISDFFR-----LFSAG----NEETKLQVLKLLLNLAENPAMTRELLRAQ 242
 :: : | || : | | |:: : | : || | : |
 Db 241 SSSQGNDQAVQ-EDFFTRLQTIIDSRGKKTVMNQSLISTLEELLTVAEKP---YEFIMAY 296

Search completed: January 7, 2005, 14:51:42
Job time : 23.1064 secs

OM protein - protein search, using sw model

Run on: January 7, 2005, 14:33:20 ; Search time 17.1939 Seconds
(without alignments)
1885.849 Million cell updates/sec

Title: US-10-726-721A-9
Perfect score: 1715
Sequence: 1 RGDVDDAGDCSGARYNDWSD.....VKVGKFMALAEHMFPSQE 337

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Query | | Length | DB | ID | Description |
|------------|-------|-------|--------|----|--------|-------------------------|
| | Score | Match | | | | |
| 1 | 781.5 | 45.6 | 453 | 2 | JC7582 | armadillo(arm) rep |
| 2 | 683 | 39.8 | 632 | 2 | T00084 | hypothetical prote..... |
| 3 | 345 | 20.1 | 1395 | 2 | T00068 | hypothetical prote |
| 4 | 127.5 | 7.4 | 744 | 2 | A32905 | plakoglobin, desmo |
| 5 | 117.5 | 6.9 | 578 | 2 | S50446 | VAC8 protein - yea |
| 6 | 112 | 6.5 | 630 | 2 | G87753 | protein C43E11.8 [|
| 7 | 109 | 6.4 | 619 | 2 | A36682 | 72K mitochondrial |
| 8 | 108.5 | 6.3 | 867 | 2 | B96625 | hypothetical prote |
| 9 | 107.5 | 6.3 | 876 | 2 | T51951 | gamma-adaptin 1 [i |
| 10 | 107 | 6.2 | 629 | 2 | B64075 | transcription init |
| 11 | 106.5 | 6.2 | 580 | 2 | F84471 | hypothetical prote |
| 12 | 106.5 | 6.2 | 729 | 2 | A86416 | probable arm repea |
| 13 | 105 | 6.1 | 428 | 2 | T27763 | hypothetical prote |

| | | | | | | |
|----|-------|-----|------|---|--------|--------------------|
| 14 | 104 | 6.1 | 464 | 2 | S50541 | hypothetical prote |
| 15 | 104 | 6.1 | 1830 | 2 | E82909 | conserved hypothet |
| 16 | 103 | 6.0 | 449 | 2 | T26571 | hypothetical prote |
| 17 | 103 | 6.0 | 993 | 2 | A96750 | hypothetical prote |
| 18 | 103 | 6.0 | 1387 | 2 | T16511 | hypothetical prote |
| 19 | 101 | 5.9 | 711 | 2 | F86373 | protein T23E23.12 |
| 20 | 101 | 5.9 | 1299 | 2 | A86366 | T26J12.6 protein - |
| 21 | 100.5 | 5.9 | 251 | 2 | G75063 | hypothetical prote |
| 22 | 100.5 | 5.9 | 476 | 2 | T52157 | hypothetical prote |
| 23 | 100.5 | 5.9 | 1979 | 2 | C71622 | hypothetical prote |
| 24 | 100 | 5.8 | 888 | 2 | A38539 | p101 protein precu |
| 25 | 100 | 5.8 | 895 | 2 | T11979 | Preprotein translo |
| 26 | 100 | 5.8 | 911 | 2 | S28098 | guanine-nucleotide |
| 27 | 100 | 5.8 | 1802 | 2 | G71616 | hypothetical prote |
| 28 | 99.5 | 5.8 | 1046 | 2 | A86790 | ATP-dependent dsDN |
| 29 | 99 | 5.8 | 2048 | 2 | C84609 | hypothetical prote |
| 30 | 99 | 5.8 | 3066 | 1 | JQ1662 | genome polyprotein |
| 31 | 97.5 | 5.7 | 459 | 2 | T39473 | probable geranylge |
| 32 | 97.5 | 5.7 | 949 | 2 | D97781 | hypothetical prote |
| 33 | 97.5 | 5.7 | 1164 | 2 | T24806 | hypothetical prote |
| 34 | 97 | 5.7 | 522 | 2 | A57319 | overgrown hematopo |
| 35 | 97 | 5.7 | 618 | 2 | D86364 | hypothetical prote |
| 36 | 97 | 5.7 | 924 | 2 | T00518 | hypothetical prote |
| 37 | 97 | 5.7 | 937 | 2 | A35553 | beta-adaptin - hum |
| 38 | 97 | 5.7 | 937 | 2 | C35553 | beta-adaptin - rat |
| 39 | 96.5 | 5.6 | 253 | 2 | B71168 | hypothetical prote |
| 40 | 96.5 | 5.6 | 738 | 2 | S35093 | plakoglobin - Afri |
| 41 | 96 | 5.6 | 966 | 2 | D96662 | hypothetical prote |
| 42 | 95.5 | 5.6 | 868 | 2 | AE1953 | hypothetical prote |
| 43 | 95 | 5.5 | 372 | 2 | C83766 | adenine glycosylas |
| 44 | 95 | 5.5 | 511 | 2 | E90600 | hypothetical prote |
| 45 | 95 | 5.5 | 865 | 2 | T41685 | probable gamma-ada |

ALIGNMENTS

RESULT 1

JC7582

armadillo(arm) repeat protein ALEX1 - human

C;Species: Homo sapiens (man)

C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 09-Jul-2004

C;Accession: JC7582

R;Kurochkin, I.V.; Yonemitsu, N.; Funahashi, S.; Nomura, H.

Biochem. Biophys. Res. Commun. 280, 340-347, 2001

A;Title: ALEX1, a novel human armadillo repeat protein that is expressed differentially in normal tissues and carcinomas.

A;Reference number: JC7582; MUID: 21092608; PMID:11162520

A;Accession: JC7582

A;Molecule type: mRNA

A;Residues: 1-453 <KUR>

A;Cross-references: UNIPROT:Q9P291; DDBJ:AB039670

C;Comment: This protein is involved in regulation of normal cell growth, cell-to-cell signaling or in establishment of cell polarity, and such plays a role in tumor suppression.

C;Genetics:

A;Gene: alex1

A;Map position: Xq21.33-q22.2

C;Keywords: tandem repeat; transmembrane protein

Query Match 45.6%; Score 781.5; DB 2; Length 453;
Best Local Similarity 52.3%; Pred. No. 1.4e-49;
Matches 157; Conservative 56; Mismatches 74; Indels 13; Gaps 3;

```
Qy      39 RIGTEAGTRA---RARARARATRA-----RRAVQKRASPNSDDTVLSPQELQKVLCL 87
      | | : | | | | : : | | : : | | | | | | | | | | | | | | | | :
Db      156 RSGSRAGGRASGKSKGKARSKSTRAPATTWPVRRG--KFNFPYKIDDILSAPDLQKVLNI 213

Qy      88 VEMSEKPYILEAALIALGNNAAYAFNRDIIRD LGGLPIVAKILNTRDPIVKEKALIVLNN 147
      : | : | : | | | | : | | | | | | | | | | | | | | | | | | |
Db      214 LERTNDPFIQEVALVT LGNNAAYSFNQNAIRELGGVP IIAKLIKTKDPIIREKTYNALNN 273

Qy     148 LSVNAENQRR LKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTNEYQHMLANSISDFF 207
      | | | | | | | : | | : | | | | | | | | | | | | | | | | | |
Db     274 LSVNAENQGKI KTYISQVCDDTMVCRLDSAVQ MAGLRLLTNMTVTNHYQHLLSYSPDF 333

Qy     208 RLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIF 267
      | | | | : | : | : | : | | | | | | | | | | | | | | | | |
Db     334 ALLFLGNHFTKI QIMKLIINF TENPAMTRELVSCKVPSELISLFNKEWDREILLNITLTF 393

Qy     268 ENINDNFKWEENEPTQNQFGE GSLFFFLKEFQVCADKXLGIESHHDFLVKVKVGKFM AKL 327
      | | | | | | | : : : | | | | | | | | | | | | | | | | | |
Db     394 ENINDNIKNEGLASSRKEFSRSSLFFLFKESGVCVKKIKALANHNDLVVKVKVLKVLTKL 453
```

RESULT 2

T00084

hypothetical protein KIAA0512 - human

C;Species: Homo sapiens (man)

C;Date: 22-Jan-1999 #sequence_revision 22-Jan-1999 #text_change 09-Jul-2004

C;Accession: T00084

R;Nagase, T.; Ishikawa, K.; Miyajima, N.; Tanaka, A.; Kotani, H.; Nomura, N.; Ohara, O.

DNA Res. 5, 31-39, 1998

A;Title: Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins in vitro.

A;Reference number: Z14086; MUID:98290545; PMID:9628581

A;Accession: T00084

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: mRNA

A;Residues: 1-632 <NAG>

A;Cross-references: UNIPROT:O60267; EMBL:AB011084; NID:g3043547;...

PIDN:BAA25438.1; PID:g3043548

A;Experimental source: brain; clone HF0239

C;Genetics:

A;Note: KIAA0512

Query Match 39.8%; Score 683; DB 2; Length 632;
Best Local Similarity 45.3%; Pred. No. 3.4e-42;
Matches 140; Conservative 56; Mismatches 91; Indels 22; Gaps 3;

```
Qy      18 WSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRRAVQKRASPNSDDTVLS 77
      | : | : | | : | | : | | | | | | | | | | | | | | | | | |
```

```

Qy          76 LSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDGLGLPIVAKIILNTRDP 135
      :  :| ::| |:|   |:| | : ||:|  :|  | || ||| | : ::  :||
Db        1151 IGSEEFEEELLLLMEKIRDPFIHEISKIAMGMRSASQFTRDFIRDSGVVSLIETLLNYPSS 1210

Qy          136 IVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTNEY 195
      |:  | :  ::  |   :: |: :||::|:  ::| ||:|:|:: :| | :|
Db        1211 RVRTSFLENMIRMAPPYPNLNIIOTYICKVCEETLAYSVDSP EOLSGIRMIRHLTTTTTDY 1270

```



```

          :| : |:| | :||:| | : | : |||
Db      375 LRNLSDVATKQEGLESVLKILVNQLSVDDVNVLTTCATGTLNLTTCNNSKNKTLVTQNSGV 434

Qy      288 EGSLFFFLK-----EFQVCADKXL 306
          | : |:| | ||:|
Db      435 EALIHAILRAGDKDDITEPAVCALRHL 461

```

RESULT 5

S50446

VAC8 protein - yeast (*Saccharomyces cerevisiae*)

N;Alternate names: protein YEL013w

C;Species: *Saccharomyces cerevisiae*

C;Date: 28-May-1993 #sequence_revision 24-Feb-1995 #text_change 09-Jul-2004

C;Accession: S50446

R;Dietrich, F.S.

submitted to the EMBL Data Library, December 1994

A;Description: *Saccharomyces cerevisiae* chromosome V cosmid clones 9871, 8199, 9867, 9495 and lambda clones 6693 and 5898.

A;Reference number: S50428

A;Accession: S50446

A;Molecule type: DNA

A;Residues: 1-578 <DIE>

A;Cross-references: UNIPROT:P39968; EMBL:U18530; NID:g602367; PID:g602380; GSPDB:GN00005; MIPS:YEL013w

C;Genetics:

A;Gene: SGD:VAC8; MIPS:YEL013w

A;Cross-references: SGD:S0000739; MIPS:YEL013w

A;Map position: 5L

C;Function:

A;Description: required for vacuole inheritance and protein targeting from the cytoplasm to vacuole

C;Keywords: yeast vacuole

Query Match 6.9%; Score 117.5; DB 2; Length 578;

Best Local Similarity 24.2%; Pred. No. 0.63;

Matches 59; Conservative 44; Mismatches 88; Indels 53; Gaps 9;

```

Qy      76 LSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLGGL-PIVAKI----- 129
          :| : |:| |:| :| | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      82 VSREVLEPILILLQ-SQDPQIQVAACAALGNLAVNNENKLLIVEMGGLEPLINQMMGDNV 140

Qy      130 -----LNTRD-----PI-----VKEKALIVLNNLSVNAEN 154
          | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      141 EVQCNAVGCITNLATRDDNKHKIATSGALIPLTKLAKSKHIRVQRNATGALLNMTHSEEN 200

Qy      155 QRRLKVYMNQVCDDTITSRNLSS---VQLAGLRLLTNMTVTNEYQHMLANS-----ISDFF 207
          :: | :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      201 RKEL---VNAGAVPVLVSLLSSTDPDVQYYCTTALSNIIVDEANRKKLAQTEPRLVSKLV 257

Qy      208 RLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIF 267
          | : : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      258 SLMDSPSSRVKCAATLALRNLASDTSYQLEIVRAGGLPHLVKLI-QSDSIPLVLASVACI 316

Qy      268 ENIN 271
          ||:
Db      317 RNIS 320

```

RESULT 6

G87753

protein C43E11.8 [imported] - *Caenorhabditis elegans*

C;Species: *Caenorhabditis elegans*

C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004

C;Accession: G87753

R;anonymous, The C. elegans Sequencing Consortium.

Science 282, 2012-2018, 1998

A;Title: Genome sequence of the nematode C. elegans: a platform for investigating biology.

A;Reference number: A75000; MUID:99069613; PMID:9851916

A;Note: see websites genome.wustl.edu/gsc/C_elegans/ and www_sanger.ac.uk/Projects/C_elegans/ for a list of authors

A;Note: published errata appeared in Science 283, 35, 1999; Science 283, 2103, 1999; and Science 285, 1493, 1999

A;Accession: G87753

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-630 <STO>

A;Cross-references: UNIPROT:P91149; GB:chr_I; PIDN:AAB37623.1; PID:g1703569; GSPDB:GN00019; CESP:C43E11.8

C;Genetics:

A;Gene: C43E11.8

A;Map position: 1

Query Match 6.5%; Score 112; DB 2; Length 630;
Best Local Similarity 22.6%; Pred. No. 1.8;
Matches 78; Conservative 54; Mismatches 109; Indels 104; Gaps 18;

| | | | | |
|----|-----|--|---|------------------|
| Qy | 43 | EAGTRARARARAR-ATRARRAVQKRASPNSDDTVLSPQELQKVL | -----LVEMSEKPYI | 96 |
| | | :: : : : : : : : : : : | | |
| Db | 248 | EAQKSSQLASRSKLSTAVRKPVQR--SEKVD--VLIDL | DACHAMCSALLSLLELEEK--L | 301 |
| Qy | 97 | LEAALIALGNNAAAYAFNRDIIRD | LGGLPIVAKILNTRDPIVKEKALIVL----- | 145 |
| | | : : : : : : : : : : : : | | |
| Db | 302 | MVKAIPDTSKRA-----QVFREL | VSRLAYAVVQTQ-KVVNEKD | GIVPLPLHLLSQ 354 |
| Qy | 146 | -----NNLSVNA-----ENQRRLKV---- | YMNQVCDD-----TITS | 172 |
| | | : : : : : : : : : : : : | | |
| Db | 355 | NYARFHNLATNSIGDVQFDSL | MRQLQVKCSSYVNEVIENLNEDTTKFVPPDGNVHPTTAS | 414 |
| Qy | 173 | RLNSSVQLAGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENP | 232 | |
| | | : : : : | | |
| Db | 415 | TLNFLSSLTAHR----VTVT---QHVLA----- | LTAPQGSNTNLLLPKLF----- | 452 |
| Qy | 233 | AMTRELLRAQVPSSLGSLFNKKEN--KEVILKLLVIFENINDNFKWEENE-----PTQNQ | 285 | |
| | | : : : : : : : : : | | |
| Db | 453 | -----ARILSALGSMLKKKANLYDDPTLATIFLLNNYNYIAKTLADEQDGLLPAITE | 504 | |
| Qy | 286 | FGEGLFFFLKEFQVCADKXL---- | GIESHHDFLVKVKVGKFM | 326 |
| | | : : : : : : | | |
| Db | 505 | MNSNILSFYHEEIATCTNEYLKS | WNGIASILKSVDRIGEDKQMAK | 549 |

RESULT 7

A36682
 72K mitochondrial outer membrane protein - *Neurospora crassa*
 C;Species: *Neurospora crassa*
 C;Date: 12-Apr-1991 #sequence_revision 12-Apr-1991 #text_change 09-Jul-2004
 C;Accession: A36682
 R;Steger, H.F.; Soellner, T.; Kiebler, M.; Dietmeier, K.A.; Pfaller, R.; Truelzsch, K.S.; Tropschug, M.; Neupert, W.; Pfanner, N.
 J. Cell Biol. 111, 2353-2363, 1990
 A;Title: Import of ADP/ATP carrier into mitochondria: two receptors act in parallel.
 A;Reference number: A36682; MUID:91115930; PMID:2177474
 A;Accession: A36682
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Residues: 1-619 <STE>
 A;Cross-references: UNIPROT:P23231; GB:X53735; NID:g3027; PIDN:CAA37767.1; PID:g3028
 C;Superfamily: mitochondrial outer membrane protein, 70K; tetratricopeptide repeat homology
 C;Keywords: membrane protein; mitochondrion
 F;131-163/Domain: tetratricopeptide repeat homology #status atypical <TT1>
 F;164-197/Domain: tetratricopeptide repeat homology <TT2>
 F;198-231/Domain: tetratricopeptide repeat homology <TT3>
 F;335-368/Domain: tetratricopeptide repeat homology <TT4>
 F;369-402/Domain: tetratricopeptide repeat homology <TT5>
 F;403-436/Domain: tetratricopeptide repeat homology <TT6>
 F;512-545/Domain: tetratricopeptide repeat homology <TT7>
 F;546-579/Domain: tetratricopeptide repeat homology <TT8>

Query Match 6.4%; Score 109; DB 2; Length 619;
 Best Local Similarity 25.2%; Pred. No. 2.9;
 Matches 86; Conservative 40; Mismatches 129; Indels 86; Gaps 18;

| | | | |
|----|-----|---|-----|
| Qy | 31 | IVWYPPWARIGTEAG---TRARARARATRRARRAVQKRASPNSDD--TVLSPQEL---- | 81 |
| | | : : : : : : : : : : : : | |
| Db | 56 | VVYYLRKGSEQKESGPKLSKKERRKRKQAEKASTSKTEEAAPTQPKAAAVESADELPEID | 115 |
| Qy | 82 | -QKVLCLVEMSEKPYILEAALIALGNNA--AYAFNRDIIRD LGGLPIVAKILNTRDPIVK | 138 |
| | | : : : : : : : : : : | |
| Db | 116 | EESVRLSEDERKAY--AAKLKELGNKAYGSKDFNKAI--DLYSKAIICK----PDPVYY | 167 |
| Qy | 139 | EKALIVLNNLS----VNAENQRRLKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTNE | 194 |
| | | : : : : : : : : : : : : | |
| Db | 168 | SNRAACHNALAQWEQVVADTTAALKLDPHYV--KALNRRANAYDQL-----SR | 213 |
| Qy | 195 | YQHML----ANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRAQVPSSLGSL | 250 |
| | | : : : : : : : : : : : : | |
| Db | 214 | YRHALLDFTASCIIDGFR-----NEQSAQAVERRLLKKFAENKA--KEILETKPPKLPSS | 266 |
| Qy | 251 | FNKKENKEVILKLLVIF-----ENINDNFKWEENEPTQNQFGEGSLFFFLKE----- | 297 |
| | | : : : : : : : : : : : | |
| Db | 267 | F-----VGNYLQSFRRSKPRPEGLEDSELSVSE-----ETGLGQLQLGLKHLESKTGT | 312 |
| Qy | 298 | -----FQVCADKXLGIESHHDFLVKVKVGKFMAKLAEH | 330 |
| | | : : : : : : : : : : | |
| Db | 313 | GYEEGSAAFKKALD--LGELGPHEALAYNLRGTFHCLMGKH | 351 |

RESULT 8

B96625

hypothetical protein T2K10.12 [imported] - Arabidopsis thaliana

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004

C;Accession: B96625

R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, J.; Altaf, H.; Araujo, R.; Bowman, C.L.; Brooks, S.Y.; Buehler, E.; Chan, A.; Chao, Q.; Chen, H.; Cheuk, R.F.; Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; Dunn, P.; Etgu, P.; Feldblyum, T.V.; Feng, J.; Fong, B.; Fujii, C.Y.; Gill, J.E.; Goldsmith, A.D.; Haas, B.; Hansen, N.F.; Hughes, B.; Huizar, L.

Nature 408, 816-820, 2000

A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.J.; Koo, H.L.; Kremenetskaia, I.; Kurtz, D.B.; Kwan, A.; Lam, B.; Langin-Hooper, S.; Lee, A.; Lee, J.M.; Lenz, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, A.; Militscher, J.; Miranda, M.; Nguyen, M.; Nierman, W.C.; Osborne, B.I.; Pai, G.; Peterson, J.; Pham, P.K.; Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.

A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, L.J.; Tambunga, G.; Toriumi, M.J.; Town, C.D.; Utterback, T.; van Aken, S.; Vaysberg, M.; Vysotskaia, V.S.; Walker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A;Reference number: A86141; MUID:21016719; PMID:11130712

A;Accession: B96625

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-867 <STO>

A;Cross-references: UNIPROT:Q9ZUI6; GB:AE005173; NID:g4249386; PIDN:AAD14483.1; GSPDB:GN00141

C;Genetics:

A;Gene: T2K10.12

A;Map position: 1

Query Match 6.3%; Score 108.5; DB 2; Length 867;

Best Local Similarity 22.5%; Pred. No. 4.8;

Matches 73; Conservative 39; Mismatches 96; Indels 117; Gaps 15;

| | | | |
|----|-----|--|-----|
| Qy | 41 | GTEAGTRARA-RARARATRARRAVQK-----RASPNSDD----- | 73 |
| | | : : | |
| Db | 7 | GTRLSDMIRAIRASKTAAEERAVVRKECAAIRASINENDQDYRHRDLAKLMFIHMLGYPT | 66 |
| Qy | 74 | -----TVLSP-----QELQKVLCLVEMSEK-----PYILEAAL | 101 |
| | | : : : | |
| Db | 67 | HFGQMECLKLIASPGFPEKRIGYLGMLLLDERQEVLMLVTNSLKQDLNHTNQYIVGLAL | 126 |
| Qy | 102 | IALGNNAAYAFNRDIIRDLGGLPIVAKILNTRDPIVKEKALI----VLNNLSVNAENQRR | 157 |
| | | : : : :: : : : : | |
| Db | 127 | CALGNICSAEMARDL-----APEVERLLQFRDPNIRKKAALCAIRIIRKVPDLSEN--- | 177 |
| Qy | 158 | LKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTN----EYQHM-----LAN | 201 |
| | | :: : : : : : : : | |
| Db | 178 | ---FINP--GAALLKEKHGVLITGVHLCTEICKVSSEALEYFRKKCTEGLVKTLRDIAN | 232 |
| Qy | 202 | S-----ISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR---AQVPSSLG | 248 |

```

      |      | : | |      : : | | | | | : | : : | | | |
Db      233 SPYSPEYDVAGITDPF-----LHIRLLKLLRVLGQGDADASDCMNDILAQVASKTE 283

Qy      249 SLFNKKENKEVILKLLVIFENINDN 273
      | | | : : : : | : |
Db      284 S--NKNAGNAILYECVQTIMSIEEN 306

```

RESULT 9

T51951

gamma-adaptin 1 [imported] - Arabidopsis thaliana

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Date: 20-Oct-2000 #sequence_revision 20-Oct-2000 #text_change 09-Jul-2004

C;Accession: T51951

R;Schledzewski, K.; LaBrie, S.T.; Crawford, N.M.; Brinkmann, H.; Medel, R.R.

submitted to the EMBL Data Library, April 1998

A;Description: Sequencing of the Arabidopsis thaliana EST clone 203C19T7

(Accession H77083) that is homologous to gamma-adaptin from mouse and Ustilago maydis.

A;Reference number: Z25886

A;Accession: T51951

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: mRNA

A;Residues: 1-876 <SCH>

A;Cross-references: UNIPROT:O81227; EMBL:AF061286; PIDN:AAC28338.1

A;Experimental source: cultivar Columbia

```

Query Match          6.3%; Score 107.5; DB 2; Length 876;
Best Local Similarity 22.7%; Pred. No. 5.8;
Matches 73; Conservative 35; Mismatches 99; Indels 115; Gaps 14;

```

```

Qy      44 AGTRARARARA-----RATRARRAVQK-----RASPNSDD----- 73
      : | | | | | | | | | | | | | | | | | | | | | |
Db      6 SGTRLRDMIRAIRACKTAAEERAVVRKECADIRALINEDDPHHRNLA KL MF I H M L G Y P 65

Qy      74 -----TVLSP-----QELQKVLCLVEMSEK-----PYILEAA 100
      : | | | | | | | | | | | | | | | | | | | | | |
Db      66 THFGQMECLKLIASPGFPEKRIGYLGIMLLLLDERQEVLMLVTNSLQDLNHSNQYVVG LA 125

Qy      101 LIALGNNAAYAFNRDIIRD LGGLPIVAKILNTRDPIVKEKALIVLNNL-----SV 150
      | | | | | : | | : | | : : | | : : | | : : | |
Db      126 LCALGNICSAEMARDL-----APEVERLIQFRDPNIRKKAALCSTRIIRKVPDLAENFV 179

Qy      151 NA-----ENQRR LKVYMNQVCDDTITSR LNSSV-----QLAGLRLLTNMTVTN 193
      | | | | | : : : | : | : | : | : | : | : |
Db      180 NAAASLLKEKHGVLITGVQLCYELCT--INDEALEYFRTKCTEGLIKTLRDITNSAYQP 237

Qy      194 EYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR---AQVPSSLGSL 250
      | | | | | : | | | : : : | | : | : | : |
Db      238 EYD---VAGITDPF-----LHIRLLRLLRVLGQGDADASDLMTDILAQVATKTES- 284

Qy      251 FNKKENKEVILKLLVIFENIND 272
      | | | : : : | |
Db      285 -NKNAGNAVLYECVETIMAIED 305

```

RESULT 10

B64075

transcription initiation factor sigma 70 - Haemophilus influenzae (strain Rd KW20)

C;Species: Haemophilus influenzae

C;Date: 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 09-Jul-2004

C;Accession: B64075

R;Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage, A.R.; Bult, C.J.; Tomb, J.F.; Dougherty, B.A.; Merrick, J.M.; McKenney, K.; Sutton, G.; FitzHugh, W.; Fields, C.; Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, J.F.; Phillips, C.A.; Spriggs, T.; Hedblom, E.; Cotton, M.D.; Utterback, T.R.; Hanna, M.C.; Nguyen, D.T.; Saudek, D.M.; Brandon, R.C.; Fine, L.D.; Fritchman, J.L.; Fuhrmann, J.L.; Geoghegan, N.S.M.

Science 269, 496-512, 1995

A;Authors: Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; Smith, H.O.; Venter, J.C.

A;Title: Whole-genome random sequencing and assembly of Haemophilus influenzae Rd.

A;Reference number: A64000; MUID:95350630; PMID:7542800

A;Accession: B64075

A;Status: nucleic acid sequence not shown; translation not shown

A;Molecule type: DNA

A;Residues: 1-629 <TIGR>

A;Cross-references: UNIPROT:P43766; GB:U32735; GB:L42023; NID:g1573509;

PIDN:AAC22190.1; PID:g1573517; TIGR:HI0533

C;Superfamily: transcription initiation factor sigma 70; transcription initiation factor sigma katF homology; transcription initiation factor sigma region 1 homology

C;Keywords: DNA binding; sigma factor; transcription initiation

F;1-143/Domain: transcription initiation factor sigma region 1 homology <SR1>

F;397-623/Domain: transcription initiation factor sigma katF homology <KTF>

Query Match 6.2%; Score 107; DB 2; Length 629;

Best Local Similarity 21.2%; Pred. No. 4.1;

Matches 55; Conservative 37; Mismatches 94; Indels 74; Gaps 10;

```
Qy      3 DVDDAGDCSGARYNDWSDDDD-----DSNESKSIVWYPPWARIGTEAGTRARARAR 55
      | || : | | | :|| | :|| : | | : | :
Db     192 DEDDEESSNADVEDNEDEEDNESESTSDSSSDSN-----SIDPEVAREKFQQLREQ 243

Qy      56 ATRARRAVQK--RASPNSDDTVLSPQELQK-----VLCLVEMSEKPYILEAAL 101
      :: :| | : : | : | : | | : || :: | |
Db     244 HSKTLAVIEKHGRSGKRAQDQIALLGEIFKQFRLVPKQFDLLVLSMKEMMKRVRYQERQL 303

Qy     102 IALGNNAAYAFNRDIIRD LGGLP-----IVAKILNTRDPIVK-----E 139
      : | : | : | : | | | | : | | : :
Db     304 -----QKILVDIAGMPKDDFEKIITNGSNSEWVAKALKSSKPWAKRLIKYED 351

Qy     140 KALIVLNNLSVNAENQRR LKVYMNQVCD-----DTITSRLNSSVQLAGLRLLTNMTVTNE 194
      : |||:: || : | :|| : | : ||| : :: :
Db     352 RIYEALNNLAITEENTKLTITQMRDICDAVARGEQKARRAKKEMVEANLRLV--ISIACK 409

Qy     195 YQHMLANSISDFFRLFSAGN 214
      | | | | |
Db     410 Y----TNRGLQFLDLIQEGN 425
```

RESULT 11

F84471

hypothetical protein At2g05810 [imported] - Arabidopsis thaliana

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004

C;Accession: F84471

R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; Mason, T.M.; Bowman, C.L.; Barnstead, M.E.; Feldblyum, T.V.; Buell, C.R.; Ketchum, K.A.; Lee, J.J.; Ronning, C.M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, L.J.; Gill, J.E.; Adams, M.D.; Carrera, A.J.; Creasy, T.H.; Goodman, H.M.; Somerville, C.R.; Copenhaver, G.P.; Preuss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J.C.

Nature 402, 761-768, 1999

A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.

A;Reference number: A84420; MUID:20083487; PMID:10617197

A;Accession: F84471

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-580 <STO>

A;Cross-references: UNIPROT:Q8S8G1; GB:AE002093; NID:g6598505; PIDN:AAF18619.1; GSPDB:GN00139

C;Genetics:

A;Gene: At2g05810

A;Map position: 2

Query Match 6.2%; Score 106.5; DB 2; Length 580;
Best Local Similarity 18.6%; Pred. No. 4;
Matches 56; Conservative 52; Mismatches 86; Indels 107; Gaps 8;

```

Qy      67 ASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALI----- 102
      :| :| || | :| :| | : ||:
Db      232 SSADSRKTVFEQGGLGPLLRLLLETGSSPFKTRAAIAIEAITADPATAWAISAYGGVTVLI 291

Qy      103 -----ALGNNAAYAFNRDIIRD LGGLPIVAKILNT----- 132
      | : | || | : : | :| : :| :
Db      292 EACRSGSKQVQEHIAGAISNIAAVEEIRTTLAEEGAIPVLIQLLISGSSSVQEK TANFIS 351

Qy      133 -----RDPIVKEKA----LIVLNNLSVNAENQRRLKVYMNQV-CDDTITSRLNSS- 177
      || ||:| : || | | | : : :| : :| :| :|
Db      352 LISSSGEYYRDLIVRERGGQLIHLVQESSNPDTIEHCLLALSQISAMETVSRVLSST 411

Qy      178 -----VQLAGLRLLTNMTVTNEYQHMLANSISDFFRLFS----AGNEET 217
      :| ||:| :| : : :| :| || || :|
Db      412 RFIIRLGELIKHGNVILQQISTSLLSNLTISDGNKRAVADCLSSLIRLMESPKPAGLQEA 471

Qy      218 KLQVLKLLLNLAE NPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWE 277
      : | || : | :||:| : : :| : : :| :
Db      472 ATEAAKSLT VRSN---RKELMR-----DEKSVIRLVQMLDPRNERNMNNK 513

Qy      278 E 278
      |
Db      514 E 514

```

RESULT 12

A86416

probable arm repeat-containing protein - Arabidopsis thaliana

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004

C;Accession: A86416

R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, J.; Altaf, H.; Araujo, R.; Bowman, C.L.; Brooks, S.Y.; Buehler, E.; Chan, A.; Chao, Q.; Chen, H.; Cheuk, R.F.; Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; Dunn, P.; Etgu, P.; Feldblyum, T.V.; Feng, J.; Fong, B.; Fujii, C.Y.; Gill, J.E.; Goldsmith, A.D.; Haas, B.; Hansen, N.F.; Hughes, B.; Huizar, L.

Nature 408, 816-820, 2000

A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.J.; Koo, H.L.; Kremenetskaia, I.; Kurtz, D.B.; Kwan, A.; Lam, B.; Langin-Hooper, S.; Lee, A.; Lee, J.M.; Lenz, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, A.; Militscher, J.; Miranda, M.; Nguyen, M.; Nierman, W.C.; Osborne, B.I.; Pai, G.; Peterson, J.; Pham, P.K.; Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.

A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, L.J.; Tambunga, G.; Toriumi, M.J.; Town, C.D.; Utterback, T.; van Aken, S.; Vaysberg, M.; Vysotskaia, V.S.; Walker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A;Reference number: A86141; MUID:21016719; PMID:11130712

A;Accession: A86416

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-729 <STO>

A;Cross-references: UNIPROT:Q9C7R6; GB:AE005172; NID:g10092208; PIDN:AAG12624.1; GSPDB:GN00141

C;Genetics:

A;Map position: 1

Query Match 6.2%; Score 106.5; DB 2; Length 729;
Best Local Similarity 23.0%; Pred. No. 5.4;
Matches 51; Conservative 39; Mismatches 101; Indels 31; Gaps 7;

```
Qy      68 SPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAF-----N 113
      | | | | | : | : | | : | : | : | : | : | : | : | : | : |
Db      386 SPNESFASALPTK-----AAVEANKATVSILIKYLADGSQAAQTVAAREIRLLAKTGKEN 440

Qy      114 RDIIRDLGGLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR 173
      | | : | : | : : | : | : | : | : | : | : | : | : | : |
Db      441 RAYIAEAGAIPLCRLLTSENIAIQENSVTAMLNLSIYEKNKSR--IMEEGDCLESIVSV 498

Qy      174 LNSSV---QLAGLRLLTNMTVTNEYQHMLA---NSISDFFRLFSAGNEETKLQVLKLLL 226
      | | : | | | : : : : | : | : | : | : | : | : | : |
Db      499 LVSGLTVEAQENAAATLFSLSAVHEYKKRIAIVDQCVEALALLLQNGTPRGKKDAVTALY 558

Qy      227 NLAENPAMTRELLRAQVPSSL-GSLFNKKENKEV--ILKLLV 265
      | | : | : | : | | | : | : | : | : | : | : | : |
Db      559 NLSTHPDNC SRMIEGGGVSSLVGALKNEGVAEEAAGALALLV 600
```

RESULT 13

T27763

hypothetical protein ZK177.5 - Caenorhabditis elegans

C;Species: *Caenorhabditis elegans*
 C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
 C;Accession: T27763
 R;Anderson, K.
 submitted to the EMBL Data Library, July 1995
 A;Description: The sequence of *C. elegans* cosmid ZK177.
 A;Reference number: Z20416
 A;Accession: T27763
 A;Status: preliminary; translated from GB/EMBL/DDBJ
 A;Molecule type: DNA
 A;Residues: 1-428 <AND>
 A;Cross-references: EMBL:U21321; PIDN:AAB36969.1; GSPDB:GN00020; CESP:ZK177.5
 A;Experimental source: strain Bristol N2; clone ZK177
 C;Genetics:
 A;Gene: CESP:ZK177.5
 A;Map position: 2
 A;Introns: 55/1; 95/1; 133/2; 157/2; 232/2; 253/3; 338/2

Query Match 6.1%; Score 105; DB 2; Length 428;
 Best Local Similarity 23.5%; Pred. No. 3.5;
 Matches 57; Conservative 35; Mismatches 81; Indels 70; Gaps 10;

```

Qy      71 SDDTVLSPQELQKVLCLVEM-----SEKPYILEAALIALGNNAAAYA-----FNRD 115
      | : | | : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      166 SNDLVCHVADQQKRFGGLVDMQKVAGRWSLESAGQILFEKSLGSLGNRSEWADGLIELNKK 225

Qy      116 II-----RDL--GGLPIVAKILNTRDPIVKEKALIVLN--NLSVNAENQRRLKVYMNQVC 166
      | : : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      226 IFQLSANKDMRFASYLINRKELNRRD--VKTAPMLIYNLYNLATHPE---ALKEIQKEIK 280

Qy      167 DDTITSRLNSSVQLAGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLL 226
      : | : | : | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      281 EDPASSKLT-----FLRACIKETFRMFPIGTEVSRVTQKNLIL 318

Qy      227 NLAENPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIFENINDNFK---WEENEPTQ 283
      : | | | | : | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      319 SGYEVPA GTAVDI-----NTNVLMRHEVLFSDSPREFKPQRWLEKSKEV 362

Qy      284 NQF 286
      : |
Db      363 HPF 365
  
```

RESULT 14

S50541

hypothetical protein YER038c - yeast (*Saccharomyces cerevisiae*)

C;Species: *Saccharomyces cerevisiae*

C;Date: 28-May-1993 #sequence_revision 24-Feb-1995 #text_change 09-Jul-2004

C;Accession: S50541

R;Dietrich, F.S.

submitted to the EMBL Data Library, December 1994

A;Description: The sequence of *S. cerevisiae* cosmids 9379, 9581, and lambda clone 4678.

A;Reference number: S50432

A;Accession: S50541

A;Molecule type: DNA

A;Residues: 1-464 <DIE>

A;Cross-references: UNIPROT:P40026; EMBL:U18796; NID:g603265; PID:g603271;
 GSPDB:GN00005; MIPS:YER038c
 C;Genetics:
 A;Gene: SGD:KRE29; MIPS:YER038c
 A;Cross-references: SGD:S0000840
 A;Map position: 5R
 C;Superfamily: Saccharomyces cerevisiae hypothetical protein YER038c

Query Match 6.1%; Score 104; DB 2; Length 464;
 Best Local Similarity 18.8%; Pred. No. 4.6;
 Matches 68; Conservative 57; Mismatches 110; Indels 126; Gaps 15;

```

Qy      20 DDDDDSNESKSIVWYPPWARIGTE-----AGTRARARARARATRRARRAVQKR 66
      ||||| : : | : :: :| :| : | : ||
Db      38 DDDDDEKVHPNFISDPENDSLNSDEEFSSLENSDLNLSGAKAESGDDFDPIKRTIISKR 97

Qy      67 ASPNS---DDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLGGL 123
      :|:: : : | :|::| : | : ||: :|: |
Db      98 KAPSNNEDEEIVKTPRKLNVNYVPL-----KIFNLGD----SFDDTI-----T 135

Qy     124 PIVAKILNTRDPIV---KEKALIVLNNLSVNAENQRRLK-----VYMNQVCDDTITS 172
      |||: : : |: |::: :| :| :| :| :|: | :||:
Db     136 TTVAKLQDLKKEILDSPRSNKSIVITSNTVAKSELQKSIKFSGSIPEIYLDVVTKETISD 195

Qy     173 RLNS-----SVQLAGLRL-----LTNMTVTNEYQHMLANSISDFFRLFSA 212
      : || | : : | :| :|: ||: ||
Db     196 KYKDWHFISKKNCHYEQLMDLEMKDTAYSFLFGSSRSQGVPEFVHLKCP SITNLLVLFGV 255

Qy     213 GNEETKLQVLKLLLNLAE NPAMTRELLRAQVPSSLGSLFNKKENKEV-----IL 261
      |: :|| : ||| :|
Db     256 NQEK-----NSLKINYEKKENSRYDNLTIFPVNKM L 288

Qy     262 KLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC--ADKXL--GIESHHDFLVK 317
      | |: | : :|| | ||| | :| |: : :|| | |
Db     289 KFLMYFYSDDDNDVRE-----FFLKAF-ICLILDRKVFNAMESDHRLCFK 333

Qy     318 V 318
      |
Db     334 V 334
  
```

RESULT 15

E82909

conserved hypothetical UU292 [imported] - Ureaplasma urealyticum

C;Species: Ureaplasma urealyticum

C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 20-Aug-2000

C;Accession: E82909

R;Glass, J.I.; Lefkowitz, E.J.; Glass, J.S.; Heiner, C.R.; Chen, E.Y.; Cassell, G.H.

submitted to GenBank, February 2000

A;Description: The complete sequence of Ureaplasma urealyticum: Alternate views of a minimal genome and sexually transmitted pathogen.

A;Reference number: A82870

A;Accession: E82909

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-1830 <GLA>

A;Cross-references: GB:AE002127; GB:AF222894; NID:g6899268; PIDN:AAF30701.1;
GSPDB:GN00123; UUSP:UU292
A;Experimental source: serovar 3; biovar 1
C;Genetics:
A;Gene: UU292
A;Genetic code: SGC3

Query Match 6.1%; Score 104; DB 2; Length 1830;
Best Local Similarity 19.5%; Pred. No. 27;
Matches 65; Conservative 52; Mismatches 96; Indels 120; Gaps 14;

```
Qy      77 SPQELQKVLCLVEMSE---KPY--ILEAALIALGNNAAYAFNRDIIRDLGGLPIVAKILN 131
      :|::: |: |:::| : | |:| |: :| | | | : :
Db      1400 TPEKVLKISSLLDINEIDARDYADIIEIILVEIGFNVTSIQNNDVNNN-----LK 1449

Qy      132 TRDPIVKEKALIVLN---NLSVNAENQRRLKVYMNQVCDDTITSRLNSS---VQLAGLR- 184
      | | : | :| | |: : ::| :| : || : :|| :|| |
Db      1450 TIDKKTNDFAFQILKKALNNGVSDQQLQKIKNVVNYLLDDIVKIHDSSEFLRIQLEQLSH 1509

Qy      185 -----LLTNMTVTNEYQHMLA-----NS 202
      | :|: ::| : :
Db      1510 VLVDKITAVLPKSLTIKHKYTKIFSSILNNQDFLQKAKTLLSTILNELIDHKDKYKDINS 1569

Qy      203 ISDFFRLFSAGN-EETKLQVLKLLLNLAE NPAMTRELLRAQVPSSLGSLFNKKENKEVIL 261
      |: :| : | |: || : :| : : : :| | || |
Db      1570 FSELISVFFKNKASDLKTQLKDLLNTILKNQTLITNIGQVIIESF-----KLENKISIL 1623

Qy      262 -----KL-----LVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVCA 302
      |: | |: |: || | | |: :
Db      1624 DSDLEQNTISFINKIFAHITELPIYTNLVDNF-----FNFFSEYTKSS 1666

Qy      303 D-KXLGIESHHDFLVKVKVGKFMAKLAEHMF PK 334
      | | | | | : | : : |
Db      1667 DTKTLNF-----NKFKSSLFQAIIPK 1687
```

Search completed: January 7, 2005, 14:52:28
Job time : 21.1939 secs

OM protein - protein search, using sw model

Run on: January 7, 2005, 14:51:07 ; Search time 63.3717 Seconds
(without alignments)
1917.457 Million cell updates/sec

Title: US-10-726-721A-9
Perfect score: 1715
Sequence: 1 RGDVDDAGDCSGARYNDWSD.....VKVGKFMALAEHMFPSQE 337

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1603904 seqs, 360571292 residues

Total number of hits satisfying chosen parameters: 1603904

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*

- 1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
- 2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
- 3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
- 4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
- 5: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
- 6: /cgn2_6/ptodata/2/pubpaa/PCTUS_PUBCOMB.pep:*
- 7: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
- 8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
- 9: /cgn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep:*
- 10: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*
- 11: /cgn2_6/ptodata/2/pubpaa/US09C_PUBCOMB.pep:*
- 12: /cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
- 13: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
- 14: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
- 15: /cgn2_6/ptodata/2/pubpaa/US10C_PUBCOMB.pep:*
- 16: /cgn2_6/ptodata/2/pubpaa/US10D_PUBCOMB.pep:*
- 17: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
- 18: /cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.pep:*
- 19: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
- 20: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | DB | ID | Description |
|---------------|-------|----------------|--------|----|--------------------|-------------------|
| 1 | 1713 | 99.9 | 337 | 9 | US-09-780-996-9 | Sequence 9, Appli |
| 2 | 1713 | 99.9 | 337 | 16 | US-10-726-721-9 | Sequence 9, Appli |
| 3 | 1708 | 99.6 | 342 | 16 | US-10-408-765A-834 | Sequence 834, App |
| 4 | 1708 | 99.6 | 379 | 14 | US-10-028-072-216 | Sequence 216, App |
| 5 | 1708 | 99.6 | 379 | 14 | US-10-140-808-216 | Sequence 216, App |
| 6 | 1708 | 99.6 | 379 | 14 | US-10-121-049-216 | Sequence 216, App |
| 7 | 1708 | 99.6 | 379 | 14 | US-10-123-904-216 | Sequence 216, App |
| 8 | 1708 | 99.6 | 379 | 14 | US-10-140-470-216 | Sequence 216, App |
| 9 | 1708 | 99.6 | 379 | 14 | US-10-175-746-216 | Sequence 216, App |
| 10 | 1708 | 99.6 | 379 | 14 | US-10-176-918-216 | Sequence 216, App |
| 11 | 1708 | 99.6 | 379 | 14 | US-10-176-921-216 | Sequence 216, App |
| 12 | 1708 | 99.6 | 379 | 14 | US-10-137-865-216 | Sequence 216, App |
| 13 | 1708 | 99.6 | 379 | 14 | US-10-140-474-216 | Sequence 216, App |
| 14 | 1708 | 99.6 | 379 | 14 | US-10-142-431-216 | Sequence 216, App |
| 15 | 1708 | 99.6 | 379 | 14 | US-10-143-114-216 | Sequence 216, App |
| 16 | 1708 | 99.6 | 379 | 14 | US-10-140-002-216 | Sequence 216, App |
| 17 | 1708 | 99.6 | 379 | 14 | US-10-142-419-216 | Sequence 216, App |
| 18 | 1708 | 99.6 | 379 | 14 | US-10-123-262-216 | Sequence 216, App |
| 19 | 1708 | 99.6 | 379 | 14 | US-10-142-423-216 | Sequence 216, App |
| 20 | 1708 | 99.6 | 379 | 14 | US-10-121-050-216 | Sequence 216, App |
| 21 | 1708 | 99.6 | 379 | 14 | US-10-141-755-216 | Sequence 216, App |
| 22 | 1708 | 99.6 | 379 | 14 | US-10-143-032-216 | Sequence 216, App |
| 23 | 1708 | 99.6 | 379 | 14 | US-10-123-108-216 | Sequence 216, App |
| 24 | 1708 | 99.6 | 379 | 14 | US-10-123-236-216 | Sequence 216, App |
| 25 | 1708 | 99.6 | 379 | 14 | US-10-123-261-216 | Sequence 216, App |
| 26 | 1708 | 99.6 | 379 | 14 | US-10-140-921-216 | Sequence 216, App |
| 27 | 1708 | 99.6 | 379 | 14 | US-10-140-928-216 | Sequence 216, App |
| 28 | 1708 | 99.6 | 379 | 14 | US-10-121-045-216 | Sequence 216, App |
| 29 | 1708 | 99.6 | 379 | 14 | US-10-123-292-216 | Sequence 216, App |
| 30 | 1708 | 99.6 | 379 | 14 | US-10-123-903-216 | Sequence 216, App |
| 31 | 1708 | 99.6 | 379 | 14 | US-10-124-819-216 | Sequence 216, App |
| 32 | 1708 | 99.6 | 379 | 14 | US-10-124-822-216 | Sequence 216, App |
| 33 | 1708 | 99.6 | 379 | 14 | US-10-140-925-216 | Sequence 216, App |
| 34 | 1708 | 99.6 | 379 | 14 | US-10-160-498-216 | Sequence 216, App |
| 35 | 1708 | 99.6 | 379 | 14 | US-10-124-824-216 | Sequence 216, App |
| 36 | 1708 | 99.6 | 379 | 14 | US-10-127-825A-216 | Sequence 216, App |
| 37 | 1708 | 99.6 | 379 | 14 | US-10-127-829A-216 | Sequence 216, App |
| 38 | 1708 | 99.6 | 379 | 14 | US-10-127-835A-216 | Sequence 216, App |
| 39 | 1708 | 99.6 | 379 | 14 | US-10-127-839A-216 | Sequence 216, App |
| 40 | 1708 | 99.6 | 379 | 14 | US-10-127-901A-216 | Sequence 216, App |
| 41 | 1708 | 99.6 | 379 | 14 | US-10-128-693A-216 | Sequence 216, App |
| 42 | 1708 | 99.6 | 379 | 14 | US-10-131-813A-216 | Sequence 216, App |
| 43 | 1708 | 99.6 | 379 | 14 | US-10-131-818A-216 | Sequence 216, App |
| 44 | 1708 | 99.6 | 379 | 14 | US-10-131-823A-216 | Sequence 216, App |
| 45 | 1708 | 99.6 | 379 | 14 | US-10-131-824A-216 | Sequence 216, App |

ALIGNMENTS

RESULT 1

US-09-780-996-9

; Sequence 9, Application US/09780996

; Patent No. US20020061553A1

```
; GENERAL INFORMATION:
; APPLICANT: Maury, Isabella
; APPLICANT: Mercken, Luc
; APPLICANT: Fournier, Alain
; TITLE OF INVENTION: Partners of the PTB1 Domain of FE65, Preparation and Uses
; FILE REFERENCE: ST00004-US
; CURRENT APPLICATION NUMBER: US/09/780,996
; CURRENT FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: FR00/01628
; PRIOR FILING DATE: 2000-02-10
; PRIOR APPLICATION NUMBER: US 60/198,500
; PRIOR FILING DATE: 2000-04-18
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 337
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: X=G, D, V, or A
US-09-780-996-9
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Query Match          99.9%; Score 1713; DB9; Length 337;
Best Local Similarity 100.0%; Pred. No. 4.6e-157;
Matches 337; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy      1 RGDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRAR 60
          |||||||
Db      1 RGDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRAR 60

Qy     61 RAVQKRASPNSDDTVLSPOELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRDL 120
          |||||||
Db     61 RAVQKRASPNSDDTVLSPOELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRDL 120

Qy    121 GGLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQL 180
          |||||||
Db    121 GGLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQL 180

Qy    181 AGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR 240
          |||||||
Db    181 AGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR 240

Qy    241 AQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQV 300
          |||||||
Db    241 AQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQV 300

Qy    301 CADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          |||||||
Db    301 CADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
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RESULT 2
US-10-726-721-9
; Sequence 9, Application US/10726721
; Publication No. US20040166109A1
; GENERAL INFORMATION:
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; APPLICANT: Maury, Isabella
; APPLICANT: Mercken, Luc
; APPLICANT: Fournier, Alain
; TITLE OF INVENTION: Partners of the PTB1 Domain of FE65, Preparation and Uses
; FILE REFERENCE: ST00004-US
; CURRENT APPLICATION NUMBER: US/10/726,721
; CURRENT FILING DATE: 2003-12-03
; PRIOR APPLICATION NUMBER: US/09/780,996A
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: FR00/01628
; PRIOR FILING DATE: 2000-02-10
; PRIOR APPLICATION NUMBER: US 60/198,500
; PRIOR FILING DATE: 2000-04-18
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 9
; LENGTH: 337
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: X=G, D, V, or A
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (305)..(305)
; OTHER INFORMATION: Xaa can be any naturally occurring amino acid
US-10-726-721-9

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Query Match          99.9%; Score 1713; DB 16; Length 337;
Best Local Similarity 100.0%; Pred. No. 4.6e-157;
Matches 337; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 RGDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRAR 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 RGDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRAR 60

Qy     61 RAVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDL 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 RAVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDL 120

Qy    121 GGLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQL 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 GGLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQL 180

Qy    181 AGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 AGLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLR 240

Qy    241 AQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQV 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AQVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQV 300

Qy    301 CADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPKSQE 337
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 CADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPKSQE 337

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RESULT 3

US-10-408-765A-834

; Sequence 834, Application US/10408765A
 ; Publication No. US20040101874A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Ghosh, Soumitra S.
 ; APPLICANT: Fahy, Eoin D.
 ; APPLICANT: Zhang, Bing
 ; APPLICANT: Gibson, Bradford W.
 ; APPLICANT: Taylor, Steven W.
 ; APPLICANT: Glenn, Gary M.
 ; APPLICANT: Warnock, Dale E.
 ; TITLE OF INVENTION: TARGETS FOR THERAPEUTIC INTERVENTION
 ; TITLE OF INVENTION: IDENTIFIED IN THE MITOCHONDRIAL PROTEOME
 ; FILE REFERENCE: 660088.465
 ; CURRENT APPLICATION NUMBER: US/10/408,765A
 ; CURRENT FILING DATE: 2003-04-04
 ; NUMBER OF SEQ ID NOS: 3077
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 834
 ; LENGTH: 342
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-408-765A-834

Query Match 99.6%; Score 1708; DB 16; Length 342;
 Best Local Similarity 99.7%; Pred. No. 1.4e-156;
 Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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|----|-----|---|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR | 61 |
| | | | |
| Db | 7 | GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR | 66 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 121 |
| | | | |
| Db | 67 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 126 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRKQVYMNQVCDDTITSRLNSSVQLA | 181 |
| | | | |
| Db | 127 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRKQVYMNQVCDDTITSRLNSSVQLA | 186 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAEENPAMTRELLRA | 241 |
| | | | |
| Db | 187 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAEENPAMTRELLRA | 246 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 301 |
| | | | |
| Db | 247 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 306 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| | | | |
| Db | 307 | ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 342 |

RESULT 4

US-10-028-072-216

; Sequence 216, Application US/10028072

; Publication No. US20030004311A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang
; TITLE OF INVENTION:
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/028,072
; CURRENT FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 60/049911
; PRIOR FILING DATE: 1997-06-18
; PRIOR APPLICATION NUMBER: 60/056974
; PRIOR FILING DATE: 1997-08-26
; PRIOR APPLICATION NUMBER: 60/059113
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059115
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059117
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059122
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059184
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059352
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059588
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059836
; PRIOR FILING DATE: 1997-09-24
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/062285
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/062287
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/062814
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/062816
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063045
; PRIOR FILING DATE: 1997-10-24

; PRIOR APPLICATION NUMBER: 60/063082
; PRIOR FILING DATE: 1997-10-31
; PRIOR APPLICATION NUMBER: 60/063127
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063327
; PRIOR FILING DATE: 1997-10-27
; PRIOR APPLICATION NUMBER: 60/063329
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; PRIOR APPLICATION NUMBER: 60/064248
; PRIOR FILING DATE: 1997-11-03
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; PRIOR FILING DATE: 1997-11-12
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; PRIOR FILING DATE: 1997-11-17
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; PRIOR APPLICATION NUMBER: 60/069334
; PRIOR FILING DATE: 1997-12-11
; PRIOR APPLICATION NUMBER: 60/069694
; PRIOR FILING DATE: 1997-12-16
; PRIOR APPLICATION NUMBER: 60/072320
; PRIOR FILING DATE: 1998-01-23
; PRIOR APPLICATION NUMBER: 60/073612
; PRIOR FILING DATE: 1998-02-04
; PRIOR APPLICATION NUMBER: 60/074086
; PRIOR FILING DATE: 1998-02-09
; PRIOR APPLICATION NUMBER: 60/074092
; PRIOR FILING DATE: 1998-02-09
; PRIOR APPLICATION NUMBER: 60/077791
; PRIOR FILING DATE: 1998-03-12
; PRIOR APPLICATION NUMBER: 60/078910

; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: 60/079294
; PRIOR FILING DATE: 1998-03-25
; PRIOR APPLICATION NUMBER: 60/079663
; PRIOR FILING DATE: 1998-02-27
; PRIOR APPLICATION NUMBER: 60/079728
; PRIOR FILING DATE: 1998-03-27
; PRIOR APPLICATION NUMBER: 60/080165
; PRIOR FILING DATE: 1998-03-31
; PRIOR APPLICATION NUMBER: 60/081203
; PRIOR FILING DATE: 1998-04-09
; PRIOR APPLICATION NUMBER: 60/081229
; PRIOR FILING DATE: 1998-04-09
; PRIOR APPLICATION NUMBER: 60/081695
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; PRIOR APPLICATION NUMBER: 60/081817
; PRIOR FILING DATE: 1998-04-15
; PRIOR APPLICATION NUMBER: 60/081818
; PRIOR FILING DATE: 1998-04-15
; PRIOR APPLICATION NUMBER: 60/082999
; PRIOR FILING DATE: 1998-04-24
; PRIOR APPLICATION NUMBER: 60/083322
; PRIOR FILING DATE: 1998-04-28
; PRIOR APPLICATION NUMBER: 60/083545
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/084600
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084627
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084637
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/085149
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: 60/085323
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085338
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085339
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085579
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/085697
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/085704
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/086414
; PRIOR FILING DATE: 1998-05-22
; PRIOR APPLICATION NUMBER: 60/086430
; PRIOR FILING DATE: 1998-05-22
; PRIOR APPLICATION NUMBER: 60/087106
; PRIOR FILING DATE: 1998-05-28
; PRIOR APPLICATION NUMBER: 60/088026
; PRIOR FILING DATE: 1998-06-04
; PRIOR APPLICATION NUMBER: 60/088730
; PRIOR FILING DATE: 1998-06-10
; PRIOR APPLICATION NUMBER: 60/088741
; PRIOR FILING DATE: 1998-06-10


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; PRIOR APPLICATION NUMBER: 60/088810
; PRIOR FILING DATE: 1998-06-10
; PRIOR APPLICATION NUMBER: 60/088858
; PRIOR FILING DATE: 19/98-06-11
; PRIOR APPLICATION NUMBER: 60/089532
; PRIOR FILING DATE: 1998-06-17
; PRIOR APPLICATION NUMBER: 60/089599
; PRIOR FILING DATE: 1998-06-17
; PRIOR APPLICATION NUMBER: 60/089907
; PRIOR FILING DATE: 1998-06-18
; PRIOR APPLICATION NUMBER: 60/089947
; PRIOR FILING DATE: 1998-06-19
; PRIOR APPLICATION NUMBER: 60/090349
; PRIOR FILING DATE: 1998-06-23
; PRIOR APPLICATION NUMBER: 60/090429
; PRIOR FILING DATE: 1998-06-24
; PRIOR APPLICATION NUMBER: 60/090445
; PRIOR FILING DATE: 1998-06-24
; PRIOR APPLICATION NUMBER: 60/090538
; PRIOR FILING DATE: 1998-06-24
; PRIOR APPLICATION NUMBER: 60/090863
; PRIOR FILING DATE: 1998-06-26
; PRIOR APPLICATION NUMBER: 60/091360
; PRIOR FILING DATE: 1998-07-01
; PRIOR APPLICATION NUMBER: 60/091519
; PRIOR FILING DATE: 1998-07-02
; PRIOR APPLICATION NUMBER: 60/091982
; PRIOR FILING DATE: 1998-07-07
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Query Match          99.6%; Score 1708; DB 14; Length 379;
Best Local Similarity 99.7%; Pred. No. 1.7e-156;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
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Qy      2 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 61
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Db      44 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 103

Qy      62 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     104 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy     122 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     164 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223

Qy     182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     224 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283

Qy     242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy     302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPKSQE 337
        ||| ||||||||||||||||||||||||||||||||||||
Db     344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPKSQE 379
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RESULT 5

US-10-140-808-216

; Sequence 216, Application US/10140808

; Publication No. US20030017563A1

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.

; APPLICANT: Beresini, Maureen

; APPLICANT: DeForge, Laura

; APPLICANT: Desnoyers, Luc

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Sherwood, Steven

; APPLICANT: Smith, Victoria

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Watanabe, Colin K

; APPLICANT: Wood, William

; APPLICANT: Zhang, Zemin

; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

; TITLE OF INVENTION: ACIDS ENCODING THE SAME

; FILE REFERENCE: P3330R1C182

; CURRENT APPLICATION NUMBER: US/10/140,808

; CURRENT FILING DATE: 2002-05-07

; Prior Applioication removed - See File Wrapper or Palm

; NUMBER OF SEQ ID NOS: 550

; SEQ ID NO 216

; LENGTH: 379

; TYPE: PRT

; ORGANISM: Homo Sapien

US-10-140-808-216

Query Match 99.6%; Score 1708; DB 14; Length 379;

Best Local Similarity 99.7%; Pred. No. 1.7e-156;

Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy      2  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 61
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      44  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 103

Qy      62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy     122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223

Qy     182  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRA 241
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     224  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRA 283

Qy     242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC 301

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Db      284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343
Qy      302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
      ||| |||||
Db      344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379

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RESULT 6

US-10-121-049-216

; Sequence 216, Application US/10121049

; Publication No. US20030022239A1

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.

; APPLICANT: Beresini, Maureen

; APPLICANT: DeForge, Laura

; APPLICANT: Desnoyers, Luc

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Sherwood, Steven

; APPLICANT: Smith, Victoria

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Watanabe, Colin K

; APPLICANT: Wood, William

; APPLICANT: Zhang, Zemin

; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

; TITLE OF INVENTION: ACIDS ENCODING THE SAME

; FILE REFERENCE: P3330R1C17

; CURRENT APPLICATION NUMBER: US/10/121,049

; CURRENT FILING DATE: 2002-04-12

; Prior Application removed - See File Wrapper or Palm

; NUMBER OF SEQ ID NOS: 550

; SEQ ID NO 216

; LENGTH: 379

; TYPE: PRT

; ORGANISM: Homo Sapien

US-10-121-049-216

Query Match 99.6%; Score 1708; DB 14; Length 379;

Best Local Similarity 99.7%; Pred. No. 1.7e-156;

Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

Qy      2 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 61
      |||||
Db      44 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 103
Qy      62 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
      |||||
Db      104 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163
Qy      122 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLLKVYMNQVCDDTITSRLNSSVQLA 181
      |||||

```

Db 164 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223

Qy 182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
 |||

Db 224 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283

Qy 242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
 |||

Db 284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy 302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
 |||

Db 344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379

RESULT 7

US-10-123-904-216

; Sequence 216, Application US/10123904

; Publication No. US20030022328A1

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.

; APPLICANT: Beresini, Maureen

; APPLICANT: DeForge, Laura

; APPLICANT: Desnoyers, Luc

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Sherwood, Steven

; APPLICANT: Smith, Victoria

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Watanabe, Colin K

; APPLICANT: Wood, William

; APPLICANT: Zhang, Zemin

; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

; TITLE OF INVENTION: ACIDS ENCODING THE SAME

; FILE REFERENCE: P3330R1C54

; CURRENT APPLICATION NUMBER: US/10/123,904

; CURRENT FILING DATE: 2002-04-16

; Prior Application removed - See File Wrapper or Palm

; NUMBER OF SEQ ID NOS: 550

; SEQ ID NO 216

; LENGTH: 379

; TYPE: PRT

; ORGANISM: Homo Sapien

US-10-123-904-216

Query Match 99.6%; Score 1708; DB 14; Length 379;

Best Local Similarity 99.7%; Pred. No. 1.7e-156;

Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
 |||

Db 44 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103

Qy 62 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
 |||
 Db 104 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy 122 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
 |||
 Db 164 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223

Qy 182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
 |||
 Db 224 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283

Qy 242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
 |||
 Db 284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy 302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
 |||
 Db 344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379

RESULT 8

US-10-140-470-216

; Sequence 216, Application US/10140470

; Publication No. US20030022331A1

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.

; APPLICANT: Beresini, Maureen

; APPLICANT: DeForge, Laura

; APPLICANT: Desnoyers, Luc

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Sherwood, Steven

; APPLICANT: Smith, Victoria

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Watanabe, Colin K

; APPLICANT: Wood, William

; APPLICANT: Zhang, Zemin

; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

; TITLE OF INVENTION: ACIDS ENCODING THE SAME

; FILE REFERENCE: P3330R1C160

; CURRENT APPLICATION NUMBER: US/10/140,470

; CURRENT FILING DATE: 2002-05-06

; Prior Application removed - See Palm or File Wrapper

; NUMBER OF SEQ ID NOS: 550

; SEQ ID NO 216

; LENGTH: 379

; TYPE: PRT

; ORGANISM: Homo Sapien

US-10-140-470-216

Query Match 99.6%; Score 1708; DB 14; Length 379;
Best Local Similarity 99.7%; Pred. No. 1.7e-156;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy      2  GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
          |||
Db      44  GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103

Qy     62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          |||
Db    104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy    122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRKQVYMNQVCDDTITSRNSSVQLA 181
          |||
Db    164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRKQVYMNQVCDDTITSRNSSVQLA 223

Qy    182  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
          |||
Db    224  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283

Qy    242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLSFFFLKEFQVC 301
          |||
Db    284  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLSFFFLKEFQVC 343

Qy    302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          |||
Db    344  ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379
```

RESULT 9

US-10-175-746-216

; Sequence 216, Application US/10175746

; Publication No. US20030027270A1

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.

; APPLICANT: Beresini, Maureen

; APPLICANT: DeForge, Laura

; APPLICANT: Desnoyers, Luc

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Sherwood, Steven

; APPLICANT: Smith, Victoria

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Watanabe, Colin K

; APPLICANT: Wood, William

; APPLICANT: Zhang, Zemin

; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

; TITLE OF INVENTION: ACIDS ENCODING THE SAME

; FILE REFERENCE: P3330R1C353

; CURRENT APPLICATION NUMBER: US/10/175,746

; CURRENT FILING DATE: 2002-06-19

; Prior Application removed - See File Wrapper or Palm

; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 216
; LENGTH: 379
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-175-746-216

Query Match 99.6%; Score 1708; DB 14; Length 379;
Best Local Similarity 99.7%; Pred. No. 1.7e-156;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy      2  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      44  GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103

Qy      62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy     122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223

Qy     182  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 241
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     224  GLRLLTNMTVTNEYQHMLANSISDFRFLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 283

Qy     242  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     284  QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy     302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPKSQE 337
          ||| ||||||||||||||||||||||||
Db     344  ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPKSQE 379
```

RESULT 10

US-10-176-918-216

; Sequence 216, Application US/10176918

; Publication No. US20030027275A1

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William

```

; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: P3330R1C382
; CURRENT APPLICATION NUMBER: US/10/176,918
; CURRENT FILING DATE: 2002-06-20
; Prior Application removed - See File Wrapper or Palm
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 216
; LENGTH: 379
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-176-918-216

```

```

Query Match          99.6%; Score 1708; DB 14; Length 379;
Best Local Similarity 99.7%; Pred. No. 1.7e-156;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```

```

Qy      2 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 61
        |||
Db      44 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 103

Qy      62 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRD LG 121
        |||
Db     104 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRD LG 163

Qy     122 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRR LKVYMNQVCDDTITSR LNSSVQLA 181
        |||
Db     164 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRR LKVYMNQVCDDTITSR LNSSVQLA 223

Qy     182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRA 241
        |||
Db     224 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRA 283

Qy     242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
        |||
Db     284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343

Qy     302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
        |||
Db     344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379

```

RESULT 11

US-10-176-921-216

; Sequence 216, Application US/10176921

; Publication No. US20030027276A1

; GENERAL INFORMATION:

```

; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.

```



```
; APPLICANT: Gurney,Austin L.
; APPLICANT: Sherwood,Steven
; APPLICANT: Smith,Victoria
; APPLICANT: Stewart,Timothy A.
; APPLICANT: Tumas,Daniel
; APPLICANT: Watanabe,Colin K
; APPLICANT: Wood,William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: P3330R1C288
; CURRENT APPLICATION NUMBER: US/10/176,921
; CURRENT FILING DATE: 2002-06-20
; Prior Application removed - See File Wrapper or Palm
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 216
; LENGTH: 379
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-176-921-216
```

```
Query Match          99.6%; Score 1708; DB 14; Length 379;
Best Local Similarity 99.7%; Pred. No. 1.7e-156;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
```

```
Qy      2 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
|
Db      44 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103
|
Qy      62 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
|
Db      104 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163
|
Qy      122 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
|
Db      164 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 223
|
Qy      182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 241
|
Db      224 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 283
|
Qy      242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
|
Db      284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343
|
Qy      302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
|
Db      344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379
```

```
RESULT 12
US-10-137-865-216
; Sequence 216, Application US/10137865
; Publication No. US20030032155A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
```

```

; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: P3330R1C154
; CURRENT APPLICATION NUMBER: US/10/137,865
; CURRENT FILING DATE: 2002-05-03
; Prior Application removed - See Palm or File Wrapper
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 216
; LENGTH: 379
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-137-865-216

```

| | | | |
|----|-----|--|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDSNESKSIWYPPWARIGTEAGTRARARARARARR | 61 |
| Db | 44 | GDVDDAGDCSGARYNDWSDDDDSNESKSIWYPPWARIGTEAGTRARARARARARR | 103 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRD LG | 121 |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRD LG | 163 |
| Qy | 122 | GLPIVAKIILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR LNSSVQLA | 181 |
| Db | 164 | GLPIVAKIILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR LNSSVQLA | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 241 |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 283 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 301 |
| Db | 284 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVC | 343 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| Db | 344 | ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 379 |

US-10-140-474-216

Query Match 99.6%; Score 1708; DB 14; Length 379;
Best Local Similarity 99.7%; Pred. No. 1.7e-156;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

| | | | | |
|----|-----|--|------------------------|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDSDNESKSIWYPPWARI | GTEAGTRARARARARATRRARR | 61 |
| Db | 44 | GDVDDAGDCSGARYNDWSDDDDSDNESKSIWYPPWARI | GTEAGTRARARARARATRRARR | 103 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEA | ALIALGNNAAAYAFNRDIIRD | 121 |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEA | ALIALGNNAAAYAFNRDIIRD | 163 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRL | KVYMNQVCDDTITSRLNSSV | 181 |
| Db | 164 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRL | KVYMNQVCDDTITSRLNSSV | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEET | KLQVLKLLLNLAENPAMTRE | 241 |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEET | KLQVLKLLLNLAENPAMTRE | 283 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWE | ENEPTQNQFGEGLFFFLKE | 301 |

Db 284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343
Qy 302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
||| |||||
Db 344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379

RESULT 14

US-10-142-431-216

; Sequence 216, Application US/10142431
; Publication No. US20030036179A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: P3330R1C251
; CURRENT APPLICATION NUMBER: US/10/142,431
; CURRENT FILING DATE: 2002-05-10
; Prior Application removed - See File Wrapper or Palm
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 216
; LENGTH: 379
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-142-431-216

Query Match 99.6%; Score 1708; DB 14; Length 379;
Best Local Similarity 99.7%; Pred. No. 1.7e-156;
Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 61
|||||
Db 44 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR 103
Qy 62 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
|||||
Db 104 AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163
Qy 122 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRKQVYMNQVCDDTITSRLNSSVQLA 181
|||||
Db 164 GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRKQVYMNQVCDDTITSRLNSSVQLA 223

Qy 182 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 241
 |||
 Db 224 GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA 283
 Qy 242 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 301
 |||
 Db 284 QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC 343
 Qy 302 ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
 |||
 Db 344 ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 379

RESULT 15

US-10-143-114-216

; Sequence 216, Application US/10143114

; Publication No. US20030036180A1

; GENERAL INFORMATION:

; APPLICANT: Baker, Kevin P.

; APPLICANT: Beresini, Maureen

; APPLICANT: DeForge, Laura

; APPLICANT: Desnoyers, Luc

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Sherwood, Steven

; APPLICANT: Smith, Victoria

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Watanabe, Colin K

; APPLICANT: Wood, William

; APPLICANT: Zhang, Zemin

; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

; TITLE OF INVENTION: ACIDS ENCODING THE SAME

; FILE REFERENCE: P3330R1C211

; CURRENT APPLICATION NUMBER: US/10/143,114

; CURRENT FILING DATE: 2002-05-09

; Prior Application removed - See Palm or File Wrapper

; NUMBER OF SEQ ID NOS: 550

; SEQ ID NO 216

; LENGTH: 379

; TYPE: PRT

; ORGANISM: Homo Sapien

US-10-143-114-216

Query Match 99.6%; Score 1708; DB 14; Length 379;

Best Local Similarity 99.7%; Pred. No. 1.7e-156;

Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61
 |||

Db 44 GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103

| | | | |
|----|-----|---|-----|
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 121 |
| | | | |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 163 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA | 181 |
| | | | |
| Db | 164 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDDTITSRLNSSVQLA | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 241 |
| | | | |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 283 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 301 |
| | | | |
| Db | 284 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 343 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| | | | |
| Db | 344 | ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 379 |

Search completed: January 7, 2005, 15:01:14
Job time : 64.3717 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 7, 2005, 12:37:55 ; Search time 69.2668 Seconds
(without alignments)
2799.340 Million cell updates/sec

Title: US-10-726-721A-9
Perfect score: 1715
Sequence: 1 RGDVDDAGDCSGARYNDWSD.....VKVGKFMALAEHMFPSQE 337

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1825181 seqs, 575374646 residues

Total number of hits satisfying chosen parameters: 1825181

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_02:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|------------|-------|---------------|--------|----|----------|--------------------|
| 1 | 1708 | 99.6 | 342 | 2 | Q7L8L7 | Q7l8l7 homo sapien |
| 2 | 1708 | 99.6 | 379 | 2 | Q9UH62 | Q9uh62 homo sapien |
| 3 | 1708 | 99.6 | 379 | 2 | AAQ89438 | Aaq89438 homo sapi |
| 4 | 1645 | 95.9 | 379 | 2 | Q8BHS6 | Q8bhs6 mus musculu |
| 5 | 1645 | 95.9 | 379 | 2 | Q91VP8 | Q91vp8 mus musculu |
| 6 | 1625 | 94.8 | 379 | 2 | Q9DC32 | Q9dc32 mus musculu |
| 7 | 781.5 | 45.6 | 453 | 2 | Q9P291 | Q9p291 homo sapien |
| 8 | 766.5 | 44.7 | 456 | 2 | Q9CX83 | Q9cx83 mus musculu |
| 9 | 766.5 | 44.7 | 456 | 2 | AAH68228 | Aah68228 mus muscu |
| 10 | 683 | 39.8 | 632 | 2 | Q7L311 | Q7l311 homo sapien |
| 11 | 683 | 39.8 | 710 | 2 | O60267 | O60267 homo sapien |
| 12 | 683 | 39.8 | 710 | 2 | BAA25438 | Baa25438 homo sapi |
| 13 | 671.5 | 39.2 | 308 | 2 | Q9BTM6 | Q9btm6 homo sapien |
| 14 | 670.5 | 39.1 | 308 | 2 | Q8IZC1 | Q8izc1 homo sapien |
| 15 | 664 | 38.7 | 784 | 2 | Q8BJ82 | Q8bj82 m mus muscu |

| | | | | | | |
|----|-------|------|------|---|----------|--------------------|
| 16 | 663.5 | 38.7 | 343 | 2 | Q8N2F6 | Q8n2f6 homo sapien |
| 17 | 663 | 38.7 | 324 | 2 | Q91VZ8 | Q91vz8 mus musculu |
| 18 | 663 | 38.7 | 722 | 2 | Q8BTE9 | Q8bte9 m mus muscu |
| 19 | 663 | 38.7 | 784 | 2 | Q8BJ81 | Q8bj81 mus musculu |
| 20 | 663 | 38.7 | 784 | 2 | Q8BTE8 | Q8bte8 mus musculu |
| 21 | 663 | 38.7 | 784 | 2 | Q9CXI9 | Q9cxi9 m mus muscu |
| 22 | 641.5 | 37.4 | 306 | 2 | Q9CZ87 | Q9cz87 mus musculu |
| 23 | 640.5 | 37.3 | 306 | 2 | Q9D0L7 | Q9d0l7 mus musculu |
| 24 | 640.5 | 37.3 | 306 | 2 | AAH58573 | Aah58573 mus muscu |
| 25 | 640.5 | 37.3 | 306 | 2 | AAH38487 | Aah38487 mus muscu |
| 26 | 623.5 | 36.4 | 388 | 2 | Q9CUN3 | Q9cun3 mus musculu |
| 27 | 575.5 | 33.6 | 995 | 2 | Q8K2R3 | Q8k2r3 mus musculu |
| 28 | 573.5 | 33.4 | 340 | 2 | Q8R103 | Q8r103 mus musculu |
| 29 | 545.5 | 31.8 | 212 | 2 | Q75ML8 | Q75ml8 homo sapien |
| 30 | 545.5 | 31.8 | 212 | 2 | AAS07531 | Aas07531 homo sapi |
| 31 | 543.5 | 31.7 | 367 | 2 | Q9H2Q0 | Q9h2q0 homo sapien |
| 32 | 452 | 26.4 | 249 | 2 | Q8IZC3 | Q8izc3 homo sapien |
| 33 | 445 | 25.9 | 284 | 2 | Q8IZC2 | Q8izc2 homo sapien |
| 34 | 389 | 22.7 | 283 | 2 | Q9BVZ3 | Q9bvz3 homo sapien |
| 35 | 389 | 22.7 | 558 | 2 | Q6P1M9 | Q6plm9 homo sapien |
| 36 | 389 | 22.7 | 558 | 2 | Q9H969 | Q9h969 homo sapien |
| 37 | 389 | 22.7 | 558 | 2 | AAH58904 | Aah58904 homo sapi |
| 38 | 389 | 22.7 | 558 | 2 | AAH64983 | Aah64983 homo sapi |
| 39 | 354.5 | 20.7 | 497 | 2 | Q8R0B3 | Q8r0b3 mus musculu |
| 40 | 346.5 | 20.2 | 300 | 2 | Q7L4S7 | Q7l4s7 homo sapien |
| 41 | 346.5 | 20.2 | 300 | 2 | AAH07677 | Aah07677 homo sapi |
| 42 | 346.5 | 20.2 | 321 | 2 | Q9NTS2 | Q9nts2 homo sapien |
| 43 | 345 | 20.1 | 1404 | 2 | O43168 | O43168 homo sapien |
| 44 | 330.5 | 19.3 | 236 | 2 | Q9NWJ3 | Q9nwj3 homo sapien |
| 45 | 328.5 | 19.2 | 301 | 2 | Q6TEL9 | Q6tel9 brachydanio |

ALIGNMENTS

RESULT 1

Q7L8L7

ID Q7L8L7 PRELIMINARY; PRT; 342 AA.
AC Q7L8L7;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE DJ545K15.2 (ALEX3 (Protein similar to KIAA0512 and KIAA0443)) (BM-
DE 017).
GN Name=dJ545K15.2;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Wilson S.;
RL Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Bone marrow;
RX MEDLINE=20499367; PubMed=11042152;

RA Zhang Q.H., Ye M., Wu X.Y., Ren S.X., Zhao M., Zhao C.J., Fu G.,
 RA Shen Y., Fan H.Y., Lu G., Zhong M., Xu X.R., Han Z.G., Zhang J.W.,
 RA Tao J., Huang Q.H., Zhou J., Hu G.X., Gu J., Chen S.J., Chen Z.;
 RT "Cloning and functional analysis of cDNAs with open reading frames for
 RT 300 previously undefined genes expressed in CD34+ hematopoietic
 RT stem/progenitor cells.";
 RL Genome Res. 10:1546-1560(2000).
 DR EMBL; AL121883; CAB92763.1; -.
 DR EMBL; AF208859; AAF64273.1; -.
 DR InterPro; IPR008938; ARM.
 DR InterPro; IPR000225; Armadillo.
 DR InterPro; IPR006911; DUF634.
 DR Pfam; PF04826; DUF634; 1.
 DR PROSITE; PS50176; ARM_REPEAT; 1.
 SQ SEQUENCE 342 AA; 38399 MW; 6158B311FE7CB5FB CRC64;

Query Match 99.6%; Score 1708; DB 2; Length 342;
 Best Local Similarity 99.7%; Pred. No. 3.9e-118;
 Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

| | | | |
|----|-----|---|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR | 61 |
| | | | |
| Db | 7 | GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRARR | 66 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 121 |
| | | | |
| Db | 67 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 126 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDTITSLNSSVQLA | 181 |
| | | | |
| Db | 127 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRCLKVYMNQVCDTITSLNSSVQLA | 186 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA | 241 |
| | | | |
| Db | 187 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA | 246 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 301 |
| | | | |
| Db | 247 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 306 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| | | | |
| Db | 307 | ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 342 |

RESULT 2

Q9UH62

ID Q9UH62 PRELIMINARY; PRT; 379 AA.
 AC Q9UH62; Q9NPE4;
 DT 01-MAY-2000 (TrEMBLrel. 13, Created)
 DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
 DT 01-OCT-2004 (TrEMBLrel. 28, Last annotation update)
 DE Hypothetical protein (ALEX3 protein).
 GN Name=ARMCX3; Synonyms=alex3; ORFNames=UNQ2517;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Kidney;
 RA Nicolas G., Galand C., Lecomte M.-C.;
 RL Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Skin;
 RX MEDLINE=22388257; PubMed=12477932;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
 RA Jones S.J., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Skin;
 RA Strausberg R.;
 RL Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=22887296; PubMed=12975309;
 RA Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J.,
 RA Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P.,
 RA Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S.,
 RA Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J.,
 RA Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J.,
 RA Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,
 RA Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D.,
 RA Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
 RA Godowski P.;
 RT "The secreted protein discovery initiative (SPDI), a large-scale
 RT effort to identify novel human secreted and transmembrane proteins: a
 RT bioinformatics assessment.";
 RL Genome Res. 13:2265-2270(2003).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Testis;
 RX MEDLINE=21092608; PubMed=11162520;
 RA Kurochkin I.V., Yonemitsu N., Funahashi S., Nomura H.;
 RT "ALEX1, a novel human armadillo repeat protein that is expressed

RT differentially in normal tissues and carcinomas.";
 RL Biochem. Biophys. Res. Commun. 280:340-347(2001).
 DR EMBL; AF211175; AAF24487.1; -.
 DR EMBL; BC005194; AAH05194.1; -.
 DR EMBL; AY359079; AAQ89438.1; -.
 DR EMBL; AB039669; BAA94602.1; -.
 DR InterPro; IPR008938; ARM.
 DR InterPro; IPR000225; Armadillo.
 DR InterPro; IPR006911; DUF634.
 DR Pfam; PF04826; DUF634; 1.
 DR PROSITE; PS50176; ARM_REPEAT; 1.
 KW Hypothetical protein.
 SQ SEQUENCE 379 AA; 42500 MW; B715D7F83DF4DFB0 CRC64;

Query Match 99.6%; Score 1708; DB 2; Length 379;
 Best Local Similarity 99.7%; Pred. No. 4.5e-118;
 Matches 335; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

| | | | |
|----|-----|---|-----|
| Qy | 2 | GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR | 61 |
| | | | |
| Db | 44 | GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR | 103 |
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 121 |
| | | | |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG | 163 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSLNSSVQLA | 181 |
| | | | |
| Db | 164 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSLNSSVQLA | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA | 241 |
| | | | |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA | 283 |
| Qy | 242 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 301 |
| | | | |
| Db | 284 | QVPSSLGSLFNKKENKEVILKLLVIFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVC | 343 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| | | | |
| Db | 344 | ADKVLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 379 |

RESULT 3

AAQ89438

ID AAQ89438 PRELIMINARY; PRT; 379 AA.
 AC AAQ89438;
 DT 02-MAR-2004 (TrEMBLrel. 27, Created)
 DT 02-MAR-2004 (TrEMBLrel. 27, Last sequence update)
 DT 02-MAR-2004 (TrEMBLrel. 27, Last annotation update)
 DE ALEX3.
 GN UNQ2517.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primata; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]

RP SEQUENCE FROM N.A.
RX PubMed=12975309;
RA Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J.,
RA Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P.,
RA Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S.,
RA Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J.,
RA Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J.,
RA Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,
RA Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D.,
RA Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
RA Godowski P.;
RT "The Secreted Protein Discovery Initiative (SPDI), a Large-Scale
RT Effort to Identify Novel Human Secreted and Transmembrane Proteins: A
RT Bioinformatics Assessment.";
RL Genome Res. 13:2265-2270(2003).
DR EMBL; AY359079; AAQ89438.1; -.
SQ SEQUENCE 379 AA; 42500 MW; B715D7F83DF4DFB0 CRC64;

RESULT 4

GN Name=1200004E24Rik; Synonyms=Armcx3;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Whole body;
 RX MEDLINE=99279253; PubMed=10349636;
 RA Carninci P., Hayashizaki Y.;
 RT "High-efficiency full-length cDNA cloning."
 RL Meth. Enzymol. 303:19-44(1999).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Whole body;
 RX MEDLINE=21085660; PubMed=11217851;
 RA RIKEN FANTOM Consortium;
 RT "Functional annotation of a full-length mouse cDNA collection."
 RL Nature 409:685-690(2001).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Whole body;
 RA The FANTOM Consortium,
 RA the RIKEN Genome Exploration Research Group Phase I & II Team;
 RT "Analysis of the mouse transcriptome based on functional annotation of
 RT 60,770 full-length cDNAs."
 RL Nature 420:563-573(2002).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Whole body;
 RX MEDLINE=20499374; PubMed=11042159;
 RA Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
 RA Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
 RT "Normalization and subtraction of cap-trapper-selected cDNAs to
 RT prepare full-length cDNA libraries for rapid discovery of new genes."
 RL Genome Res. 10:1617-1630(2000).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Whole body;
 RX MEDLINE=20530913; PubMed=11076861;
 RA Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
 RA Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
 RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
 RA Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
 RA Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
 RA Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
 RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
 RT "RIKEN integrated sequence analysis (RISA) system-384-format
 RT sequencing pipeline with 384 multicapillary sequencer."
 RL Genome Res. 10:1757-1771(2000).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Whole body;
 RA Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
 RA Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
 RA Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
 RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,

RA Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
 RA Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
 RA Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
 RA Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
 RA Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
 RA Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
 RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
 RL Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.

RN [7]

RP SEQUENCE FROM N.A.

RC STRAIN=Mix FVB/N;

RC TISSUE=Mammary tumor. WAP-TGF alpha model. 7 months old;

RX MEDLINE=22388257; PubMed=12477932;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
 RA Jones S.J., Marra M.A.;

RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";

RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

RN [8]

RP SEQUENCE FROM N.A.

RC STRAIN=Mix FVB/N;

RC TISSUE=Mammary tumor. WAP-TGF alpha model. 7 months old;

RA Strausberg R.;

RL Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.

DR EMBL; AK030729; BAC27102.1; -.

DR EMBL; BC051113; AAH51113.1; -.

DR MGD; MGI:1918953; 1200004E24Rik.

DR InterPro; IPR008938; ARM.

DR InterPro; IPR000225; Armadillo.

DR InterPro; IPR006911; DUF634.

DR Pfam; PF04826; DUF634; 1.

DR PROSITE; PS50176; ARM_REPEAT; 1.

KW Hypothetical protein.

SQ SEQUENCE 379 AA; 42619 MW; 6EA7B87544652055 CRC64;

Query Match 95.9%; Score 1645; DB 2; Length 379;

Best Local Similarity 95.8%; Pred. No. 2e-113;

Matches 322; Conservative 5; Mismatches 9; Indels 0; Gaps 0;

QY 2 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 61

|||||

Db 44 GDVDDAGDCSGARYNDWSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRR 103

| | | | |
|----|-----|--|-----|
| Qy | 62 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRD LG | 121 |
| | | | |
| Db | 104 | AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAAYAFNRDIIRD LG | 163 |
| Qy | 122 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR LNSSVQLA | 181 |
| | | | |
| Db | 164 | GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR LNSSVQLA | 223 |
| Qy | 182 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 241 |
| | | | |
| Db | 224 | GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRA | 283 |
| Qy | 242 | QVPSSLGSLFNKKNKEVILKLLVIFENINDNFKWEENEPTQNQFGESLFFFLKEFQVC | 301 |
| | | | |
| Db | 284 | QVPSSLGSLFNKKEYKEVILKLLIIFENINDNFKWEENEPAQNH FSEGLFFFLKEFQVC | 343 |
| Qy | 302 | ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE | 337 |
| | | : | |
| Db | 344 | ADKVLGIESRHFQVRVKVGKFAKLTERMEPKSOE | 379 |

RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=Mix FVB/N;
RC TISSUE=Mammary tumor. WAP-TGF alpha model. 7 months old;
RA Strausberg R.;
RL Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR EMBL; BC011101; AAH11101.1; -.
DR MGD; MGI:1918953; 1200004E24Rik.
DR InterPro; IPR008938; ARM.
DR InterPro; IPR000225; Armadillo.
DR InterPro; IPR006911; DUF634.
DR Pfam; PF04826; DUF634; 1.
DR PROSITE; PS50176; ARM_REPEAT; 1.
SQ SEQUENCE 379 AA; 42649 MW; CE1EC87045695156 CRC64;

Query Match 95.9%; Score 1645; DB 2; Length 379;
Best Local Similarity 95.8%; Pred. No. 2e-113;
Matches 322; Conservative 5; Mismatches 9; Indels 0; Gaps 0;

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Qy      2  GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 61
          |||
Db      44  GDVDDAGDCSGARYNDWSDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARR 103

Qy      62  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 121
          |||
Db     104  AVQKRASPNSDDTVLSPQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLG 163

Qy     122  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLA 181
          |||
Db     164  GLPIVAKILNTRDPIVKEKALIVLNNLSVNAENQRRLKVYMNQVCDDTVTSRLNSSVQLA 223

Qy     182  GLRLLTNMTVTNEYQHMLANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 241
          |||
Db     224  GLRLLTNMTVTNEYQHILANSISDFFRLFSAGNEETKLQVLKLLLNLAE NPAMTRELLRA 283

Qy     242  QVPSSLGSLFNKKNKEVILKLLVIFENINDNFKWEENEPTQNQFGEGLSFFFLKEFQVC 301
          |||
Db     284  QVPSSLGSLFNKKEYKEVILKLLIIFENINDNFKWEENEPAQNH FSEGLSFFFLKEFQVC 343

Qy     302  ADKXLGIESHHDFLVKVKVGKFMAKLAEHMFPSQE 337
          |||
Db     344  ADKVLGIESRHDFQVRVKVGKFVAKLTERMFPKSQE 379

```

RESULT 6

Q9DC32

ID Q9DC32 PRELIMINARY; PRT; 379 AA.
AC Q9DC32;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Mus musculus adult male lung cDNA, RIKEN full-length enriched library,
DE clone:1200004E24 product:HYPOTHETICAL 42.5 kDa PROTEIN (ALEX3) (ALEX3
DE PROTEIN) homolog.

GN Name=1200004E24Rik;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Lung;
 RX MEDLINE=99279253; PubMed=10349636;
 RA Carninci P., Hayashizaki Y.;
 RT "High-efficiency full-length cDNA cloning.";
 RL Meth. Enzymol. 303:19-44(1999).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Lung;
 RX MEDLINE=21085660; PubMed=11217851;
 RA RIKEN FANTOM Consortium;
 RT "Functional annotation of a full-length mouse cDNA collection.";
 RL Nature 409:685-690(2001).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Lung;
 RA The FANTOM Consortium,
 RA the RIKEN Genome Exploration Research Group Phase I & II Team;
 RT "Analysis of the mouse transcriptome based on functional annotation of
 RT 60,770 full-length cDNAs.";
 RL Nature 420:563-573(2002).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Lung;
 RX MEDLINE=20499374; PubMed=11042159;
 RA Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
 RA Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
 RT "Normalization and subtraction of cap-trapper-selected cDNAs to
 RT prepare full-length cDNA libraries for rapid discovery of new genes.";
 RL Genome Res. 10:1617-1630(2000).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Lung;
 RX MEDLINE=20530913; PubMed=11076861;
 RA Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
 RA Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
 RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
 RA Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
 RA Fujiwaka S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
 RA Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
 RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
 RT "RIKEN integrated sequence analysis (RISA) system-384-format
 RT sequencing pipeline with 384 multicapillary sequencer.";
 RL Genome Res. 10:1757-1771(2000).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Lung;
 RA Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,
 RA Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
 RA Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
 RA Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
RA Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
RA Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
RA Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
RA Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,
RA Muramatsu M., Hayashizaki Y.;
RL Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
DR EMBL; AK004598; BAB23399.1; -.
DR MGD; MGI:1918953; 1200004E24Rik.
DR InterPro; IPR008938; ARM.
DR InterPro; IPR000225; Armadillo.
DR InterPro; IPR006911; DUF634.
DR Pfam; PF04826; DUF634; 1.
DR PROSITE; PS50176; ARM_REPEAT; 1.
KW Hypothetical protein.
SQ SEQUENCE 379 AA: 42662 MW: F40A039CD6E4911F CRC64;

RESULT 7

OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=21092608; PubMed=11162520;
 RA Kurochkin I.V., Yonemitsu N., Funahashi S., Nomura H.;
 RT "ALEX1, a novel human armadillo repeat protein that is expressed
 RT differentially in normal tissues and carcinomas.";
 RL Biochem. Biophys. Res. Commun. 280:340-347(2001).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Uterus;
 RX MEDLINE=22388257; PubMed=12477932;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
 RA Jones S.J., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Uterus;
 RA Strausberg R.;
 RL Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA Isogai T., Ota T., Nishikawa T., Hayashi K., Otsuki T., Sugiyama T.,
 RA Suzuki Y., Nagai K., Sugano S., Ishii S., Kawai-Hio Y., Saito K.,
 RA Yamamoto J., Wakamatsu A., Nakamura Y., Kojima S., Nagahari K.,
 RA Masuho Y., Ono T., Okano K., Yoshikawa Y., Aotsuka S., Sasaki N.,
 RA Hattori A., Okumura K., Iwayanagi T., Ninomiya K.;
 RL Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
 DR EMBL; AB039670; BAA94603.1; -.
 DR EMBL; BC002691; AAH02691.1; -.
 DR EMBL; AK074785; BAC11208.1; -.
 DR PIR; JC7582; JC7582.
 DR InterPro; IPR008938; ARM.
 DR InterPro; IPR000225; Armadillo.
 DR InterPro; IPR006911; DUF634.
 DR Pfam; PF04826; DUF634; 1.
 DR PROSITE; PS50176; ARM_REPEAT; 1.

SQ SEQUENCE 453 AA; 49180 MW; 01BED98EC3F64672 CRC64;

Query Match 45.6%; Score 781.5; DB 2; Length 453;
Best Local Similarity 52.3%; Pred. No. 2e-49;
Matches 157; Conservative 56; Mismatches 74; Indels 13; Gaps 3;

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Qy      39 RIGTEAGTRA----RARARARATRA-----RRAVQKRASPNSDDTVLSPQELQKVLCL 87
      | |: || || : :||::||| || | | | :|| :||| | :
Db      156 RSGSRAGGRASGKSKGKARSKSTRAPATTWPVRRG--KFNFPYKIDDILSAPDLQKVLNI 213

Qy      88 VEMSEKPYILEAALIALGNNAAYAFNRDIIRD LGGLPIVAKILNTRDPIVKEKALIVLNN 147
      :| : |:| | ||: |||||:|:: ||:|::|::|:: |:|::|:| | ||
Db      214 LERTNDPFIQEVALVT LGNNAAYSFNQNAIRELGGVPPIAKLIKTKDPIIREKTYNALNN 273

Qy     148 LSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTNEYQHMLANSISDFF 207
      ||||| | :| |:| ||||: ||:|::|:| ||||| |||:|: | ||
Db      274 LSVNAENQGKIPTYISQVCDDTMVCRLDSAVQMAGLRLLTNMTVTNHYQHLLSYSFPDFF 333

Qy     208 RLFSAGNEETKLOVLKLLLNLAENPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIF 267
      | || ||:|:|:|:| ||||| | :|| | ||||: |:|:| :|
Db      334 ALLFLGNHFTKIQIMKLIINF TENPAMTRELVSCKVPSELISLFNKEWDREILLNILTFL 393

Qy     268 ENINDNFKWEENEPTQNQFGEGLSFFFLKEFQVCADKXLGIESHHDFLVKVKVGKFMAKL 327
      ||||| | | : :| ||| || || | : :|:| :||| | : ||
Db      394 ENINDNIKNEGLASSRKEFSRSSLFFLFKESGVCVKKIKALANHNDLVVKVKVLKVLTKL 453
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RESULT 8

Q9CX83

ID Q9CX83 PRELIMINARY; PRT; 456 AA.
AC Q9CX83;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Mus musculus 12 days embryo head cDNA, RIKEN full-length enriched
DE library, clone:3010033I09 product:similar to ALEX1 (ALEX1 PROTEIN)
DE (3010033I09Rik protein) (Armadillo repeat containing, X-linked
DE 1).
GN Name=3010033I09Rik; Synonyms=Armcx1;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=Head;
RX MEDLINE=99279253; PubMed=10349636;
RA Carninci P., Hayashizaki Y.;
RT "High-efficiency full-length cDNA cloning."
RL Meth. Enzymol. 303:19-44(1999).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=Head;
RX MEDLINE=21085660; PubMed=11217851;
RA RIKEN FANTOM Consortium;
RT "Functional annotation of a full-length mouse cDNA collection."
RL Nature 409:685-690(2001).

RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Head;
 RA The FANTOM Consortium,
 RA the RIKEN Genome Exploration Research Group Phase I & II Team;
 RT "Analysis of the mouse transcriptome based on functional annotation of
 RT 60,770 full-length cDNAs.";
 RL Nature 420:563-573(2002).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Head;
 RX MEDLINE=20499374; PubMed=11042159;
 RA Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
 RA Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
 RT "Normalization and subtraction of cap-trapper-selected cDNAs to
 RT prepare full-length cDNA libraries for rapid discovery of new genes.";
 RL Genome Res. 10:1617-1630(2000).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Head;
 RX MEDLINE=20530913; PubMed=11076861;
 RA Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
 RA Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
 RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
 RA Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
 RA Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
 RA Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
 RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
 RT "RIKEN integrated sequence analysis (RISA) system-384-format
 RT sequencing pipeline with 384 multicapillary sequencer.";
 RL Genome Res. 10:1757-1771(2000).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=Head;
 RA Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,
 RA Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
 RA Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
 RA Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
 RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
 RA Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
 RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
 RA Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
 RA Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
 RA Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,
 RA Muramatsu M., Hayashizaki Y.;
 RL Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
 RN [7]
 RP SEQUENCE FROM N.A.
 RC STRAIN=FVB/N-3, and C57BL/6;
 RC TISSUE=Brain, Eye, and
 RC Mammary tumor. MMTV-LTR/INT3 model. 5 month old mouse. Taken by
 RC biopsy.;
 RX MEDLINE=22388257; PubMed=12477932;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Qy 152 AENQRRLKVYMNQVCDTITSRLNSSVQLAGLRLLTNMTVTNEYQHMLANSISDFFRLFS 211
 :||| ::| |:|||||: ||:|:|:||||||| ||:|: | ||| |
 Db 281 SENQGKIKTYISQVCDTDMVCRLDSAVQMAGLRLLTNMTVTNHYQHLLSYSFPDFFALLF 340
 Qy 212 AGNEETKLQVLKLLLNLAENPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLVIFENIN 271
 || ||| :|:|:| |||||: :||| | ||||: :|:|:| :| :||| |
 Db 341 LGNHFTKIQTMKLIINFTEPNAMTRELVSCKVPSELISLFNKEWDREILLNILTLEFENIN 400
 Qy 272 DNFKWEENEPTQNQFGEGSLFFFLKEFQVCADKXLGIESHHDFLVKVKVGKFMMAKL 327
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 Db 401 DNIKSEGLASSRKEFSRSSLFFLFKESGVCVKKIKALASHKDLVVVKVLKVLTKL 456

RESULT 9

AAH68228

ID AAH68228 PRELIMINARY; PRT; 456 AA.
 AC AAH68228;
 DT 01-JUN-2004 (TrEMBLrel. 27, Created)
 DT 01-JUN-2004 (TrEMBLrel. 27, Last sequence update)
 DT 01-JUN-2004 (TrEMBLrel. 27, Last annotation update)
 DE RIKEN cDNA 3010033I09.
 GN 3010033I09RIK.
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6; TISSUE=Brain;
 RX MEDLINE=22388257; PubMed=12477932;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
 RA Jones S.J., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences."
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6; TISSUE=Brain;
 RA Strausberg R.;
 RL Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
 DR EMBL; BC068228; AAH68228.1; -.
 SQ SEQUENCE 456 AA; 50643 MW; 159EFAEF1B536406 CRC64;

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
 RA Jones S.J., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences."
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Skin;
 RA Strausberg R.;
 RL Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Placenta;
 RA Strausberg R.;
 RL Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
 DR EMBL; BC015926; AAH15926.1; -.
 DR EMBL; BC012541; AAH12541.1; -.
 DR InterPro; IPR008938; ARM.
 DR InterPro; IPR000225; Armadillo.
 DR InterPro; IPR006911; DUF634.
 DR Pfam; PF04826; DUF634; 1.
 DR SMART; SM00185; ARM; 1.
 SO SEQUENCE 632 AA; 65683 MW; 7627CBFFE61C329B CRC64;

| | | | |
|----|-----|--|-----|
| Qy | 18 | WSDDDDDSNESKSIWVYPPWARIGTEAGTRARARARATRRARAVQKRASPSDDTVLS | 77 |
| Db | 345 | WTDTESDS-----SEPETQRRGRGRPV-----AMQKRFPFYEIDEILG | 384 |
| Qy | 78 | PQELQKVLCLIVEMSEKPYILEAALIALGNNAAAFNRDIIRD LGGLPIVAKILNTRDPIV | 137 |
| Db | 385 | VRDLRKVLALLQKSDDPFIQQVALLTLSNNANYSCNQETIRKLGGLPIIANMINKTDPHI | 444 |
| Qy | 138 | KEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR LNSSVQLAGLRLLTNMTVTNEYQH | 197 |
| Db | 445 | KEKALMAMNNLSENENYENQGR LQVYMNKVMDDIMASNLNSAVQVVGLKFLTNTITNDYQH | 504 |
| Qy | 198 | MLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRAQVPSSLGSLFNKKENK | 257 |
| Db | 505 | LLVNSIANFFRLLSQGGGKIKVEILKILSNFAENPDMLKKLLSTQVPASFSSLYNSYVES | 564 |
| Qy | 258 | EVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVCADKXLGIESHHDFLVK | 317 |
| Db | 565 | EILINALTLFEIYDNLRAEVF--NYREFNKGSLFYLC TTS GVCVKKIRALANHHDLLVK | 622 |
| Qy | 318 | VKVGKFM | 326 |
| Db | 623 | VKVIKLVNK | 631 |

BAA25438

Query Match 39.8%; Score 683; DB 2; Length 710;
Best Local Similarity 45.3%; Pred. No. 6.9e-42;
Matches 140; Conservative 56; Mismatches 91; Indels 22; Gaps 3;

| | | | |
|----|-----|---|-----|
| Qy | 18 | WSDDDDDSNESKSIWYPPWARGIGTEAGTRARRARARARARARAVQKRASPNSDDTVLS | 77 |
| Db | 423 | WTDTESDS-----SEPETQRRGRGRPV-----AMQKRPFPEIDEILG | 462 |
| Qy | 78 | PQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRD LGGLPIVAKILNTRDPIV | 137 |
| Db | 463 | VRDLRKVLALLQKSDDPFIQQVALLTLSNNANYSCNQETIRKLGGLPIIANMINKTDPHI | 522 |
| Qy | 138 | KEKALIVLNNLSVNAENQRRLKVYMNQVCDTITSR LNSSVQLAGLRLLTNMTVTNEYQH | 197 |
| Db | 523 | KEKALMAMNNLSENYENQGR LQVYMNKVMDDIMASNLNSAVQVVGLKFLTNTITNDYQH | 582 |
| Qy | 198 | MLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRAQVPSSLGSLFNKKENK | 257 |
| Db | 583 | LLVNSIANFFRLLSQGGGKIKVEILKILSNFAENPDMLKKLLSTQVPASFSSLYNSYVES | 642 |
| Qy | 258 | EVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLKEFQVCADKXLGIESHHDFLVK | 317 |
| Db | 643 | EILINALTLFEIYDNLRAEVF--NYREFNKGSLFYLC TTS GVCVKKIRALANHHDLLVK | 700 |
| Qy | 318 | VKVGKFM | 326 |
| Db | 701 | VKVIKLVNK | 709 |

Q9BTM6

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ID Q9BTM6 PRELIMINARY; PRT; 308 AA.
AC Q9BTM6;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE SVH protein.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Eye;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Jones S.J., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Eye;
RA Strausberg R.;
RL Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
DR EMBL; BC003586; AAH03586.1; -.
DR InterPro; IPR008938; ARM.
DR InterPro; IPR006911; DUF634.
DR Pfam; PF04826; DUF634; 1....
SQ SEQUENCE 308 AA; 33840 MW; B25A6C926BA5C101 CRC64;

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Query Match 39.2%; Score 671.5; DB 2; Length 308;
Best Local Similarity 49.0%; Pred. No. 1.6e-41;
Matches 148; Conservative 50; Mismatches 91; Indels 13; Gaps 4;

Qy 37 WARIGTEAG-----TRARARA-RARATRARRAVQKRASPNSSDDTVLSPQELQKVL 85
| | | | | | | | : : : : | | | : : | | : |
Db 9 WVAAGLLLGLGACYCIYRLTRGRRRGDRELGI RSSKSAEDLTGDSYDD-VLNAEQLQKLL 67

Qy 86 CLVEMSEKPYILEAALIALGNNAAYAFNRDIIRD LGGLPIVAKILNTRDPIVKEKALIVL 145

```

Db          |:| :| | |:| ||| |||||:: |: |||:||||| |:| : :|||| |
68 YLLESTEDPVIIERALITLGNNAAFVSNQAIIRELGGIPIVANKINHSNQSISKEKALNAL 127

Qy          146 NNLSVNAENQRRLLKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTNEYQHMLANSISD 205
          ||||| ||| ::|:|:|:|:| |:| : |||:||||| |||||:|:|:| |:|
Db          128 NNLSVNVENQIKIKIYISQVCEDVFSGLNSAVQLAGLTLTNMTVTNDHQHMLHSYITD 187

Qy          206 FFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLV 265
          |:| || |:|:|||||:|:|:| ||||| || |:|: |:|:|:|
Db          188 LFQVLLTGNGNTKVQVLKLLLNLSENPAITEGLLRAQVDSSFLSLYDSHVAKILLRVLT 247

Qy          266 IFENINDNFKWEENEPTQNQFGEGLSFFFLKEFQVCADKXLGIESHHDFLVKVKVGKFMMA 325
          |:|:| : | | : | | ||||| | : || | : ||| || || :
Db          248 LFQNIKNCLKIEGHLAVQPTFTEGLSFFLL-HGEECAQKIRALVDHHDAAEVKEKVVTIIP 306

Qy          326 KL 327
          |:
Db          307 KI 308

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RESULT 14

Q8IZC1

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ID  Q8IZC1      PRELIMINARY;      PRT;      308 AA.
AC  Q8IZC1;
DT  01-MAR-2003 (TrEMBLrel. 23, Created)
DT  01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT  01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE  SVH-B.
GN  Name=SVH;
OS  Homo sapiens (Human).
OC  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX  NCBI_TaxID=9606;
RN  [1]
RP  SEQUENCE FROM N.A.
RA  Huang R., Xing Z., Luan Z., Wu T., Wu X., Hu G.;
RL  Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
DR  EMBL; AY150853; AAN72315.1; -.
DR  InterPro; IPR008938; ARM.
DR  InterPro; IPR006911; DUF634.
DR  Pfam; PF04826; DUF634; 1.
SQ  SEQUENCE      308 AA;  33850 MW;  9F74718D8B96C102 CRC64;

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Query Match      39.1%; Score 670.5; DB 2; Length 308;
Best Local Similarity  49.0%; Pred. No. 1.9e-41;
Matches 148; Conservative  50; Mismatches  91; Indels  13; Gaps  4;

```

```

Qy          37 WARIGTEAG-----TRARARA-RARATRARRAVQKRASPNSDDTVLSPQELQKVL 85
          | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db          9 WVAAGLLLGAGACYCIYRLTRGRRRGDRELGISSKSAEDLTDGSYDD-VLNAEQLQKLL 67

Qy          86 CLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLGGLPIVAKILNTRDPIVKEKALIVL 145
          |:| :| | |:| ||| |||||:: |: |||:||||| |:| : :|||| |
Db          68 YLLESTEDPVIIERALITLGNNAAFVSNQAIIRELGGIPIVANKINHSNQSISKEKALNAL 127

Qy          146 NNLSVNAENQRRLLKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTNEYQHMLANSISD 205
          ||||| ||| ::|:|:|:|:| |:| : |||:||||| |||||:|:|:| |:|

```

Db 128 NNLSVNVENQIKIKIYISQVCEDVFSGPLNSAVQLAGLTLTNTMTVTNDHQHMLHSYITD 187

Qy 206 FFRLFSAGNEETKLQVLKLLLNLNLAENPAMTRELLRAQVPSSLGSLFNKKENKEVILKLLV 265
 |:: || ||:|||||||:||||| ||||| || ||:: ||::|::|

Db 188 LFQVLLTGNGNTKVQVLKLLLNLSENPAITEGLLRAQVDSSFLSLYDSHVAKEILLRVLT 247

Qy 266 IFENINDNFKWEENEPTQNQFGEGSLFFFLKEFQVCADKXLGIESHHDFLVKVKVGKFMA 325
 :|::| : | : | | ||||| | : || | : ||| || || :

Db 248 LFQNIKNCLKIEGHLAVQPTFTTEGSLFFLL-HGEECAQKIRALVDHHDAAEVKEKVVTIIP 306

Qy 326 KL 327
 |:

Db 307 KI 308

RESULT 15

Q8BJ82

ID Q8BJ82 PRELIMINARY; PRT; 784 AA.

AC Q8BJ82;

DT 01-MAR-2003 (TrEMBLrel. 23, Created)

DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)

DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)

DE Mus musculus 12 days embryo embryonic body between diaphragm region

DE and neck cDNA, RIKEN full-length enriched library, clone:9430015G17

DE product:weakly similar to KIAA0512 PROTEIN (ARMADILLO REPEAT PROTEIN

DE ALEX2) (SIMILAR TO ARMADILLO REPEAT PROTEIN ALEX2).

GN Name=3230401N03Rik;

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

OX NCBI_TaxID=10090;

RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN=C57BL/6J;

RC TISSUE=Embryonic body between diaphragm region and neck;

RX MEDLINE=99279253; PubMed=10349636;

RA Carninci P., Hayashizaki Y.;

RT "High-efficiency full-length cDNA cloning.";

RL Meth. Enzymol. 303:19-44(1999).

RN [2]

RP SEQUENCE FROM N.A.

RC STRAIN=C57BL/6J;

RC TISSUE=Embryonic body between diaphragm region and neck;

RX MEDLINE=21085660; PubMed=11217851;

RA RIKEN FANTOM Consortium;

RT "Functional annotation of a full-length mouse cDNA collection.";

RL Nature 409:685-690(2001).

RN [3]

RP SEQUENCE FROM N.A.

RC STRAIN=C57BL/6J;

RC TISSUE=Embryonic body between diaphragm region and neck;

RA The FANTOM Consortium,

RA the RIKEN Genome Exploration Research Group Phase I & II Team;

RT "Analysis of the mouse transcriptome based on functional annotation of

RT 60,770 full-length cDNAs.";

RL Nature 420:563-573(2002).

RN [4]

RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RC TISSUE=Embryonic body between diaphragm region and neck;
RX MEDLINE=20499374; PubMed=11042159;
RA Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
RA Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
RT "Normalization and subtraction of cap-trapper-selected cDNAs to
RT prepare full-length cDNA libraries for rapid discovery of new genes.";
RL Genome Res. 10:1617-1630(2000).
RN [5]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RC TISSUE=Embryonic body between diaphragm region and neck;
RX MEDLINE=20530913; PubMed=11076861;
RA Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
RA Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
RA Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
RA Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
RA Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RT "RIKEN integrated sequence analysis (RISA) system-384-format
RT sequencing pipeline with 384 multicapillary sequencer.";
RL Genome Res. 10:1757-1771(2000).
RN [6]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RC TISSUE=Embryonic body between diaphragm region and neck;
RA Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
RA Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
RA Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RL Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR EMBL; AK034621; BAC28774.1; -.
DR MGD; MGI:1914666; 3230401N03Rik.
DR InterPro; IPR008938; ARM.
DR InterPro; IPR006911; DUF634.
DR Pfam; PF04826; DUF634; 1.
SQ SEQUENCE 784 AA; 80987 MW; .2E724F1036F55B7A CRC64;

Query Match 38.7%; Score 664; DB 2; Length 784;
Best Local Similarity 44.0%; Pred. No. 2e-40;
Matches 136; Conservative 56; Mismatches 95; Indels 22; Gaps 3;

Qy 18 WSDDDDDSNESKSIVWYPPWARIGTEAGTRARARARARATRRARRAVQKRASPNSDDTVLS 77
|:| : ||: : | : : | : || | :|
Db 497 WTDTESDSDSEPDV-----PQRGKGKRT---IPMKRPFPPYEIDEILG 536
Qy 78 PQELQKVLCLVEMSEKPYILEAALIALGNNAAYAFNRDIIRDLGGLPIVAKILNTRDPIV 137
:::| | | : : | : | : | | | : : : | | | | : : | | :

Db 537 VRDLRKVLALLQKSDDPFIQQVALLTSLNNANYSCNQETIRKLGGLPPIIANMINKTDPHI 596
 Qy 138 KEKALIVLNNLSVNAENQRRLKVYMNQVCDDTITSRLNSSVQLAGLRLLTNMTVTNEYQH 197
 |||||: :||| | ||| ||:||||:| || : | |||:|: ||: |||||:|:|
 Db 597 KEKALMAMNNLSENYENQGRQLQVYMNKVMDDIMASNLNSAVQVVGLKFLTNTITNDYQH 656
 Qy 198 MLANSISDFFRLFSAGNEETKLQVLKLLLNLAENPAMTRELLRAQVPSSLGSLFNKKENK 257
 :| |||:|||| | | : |::||:| | ||| | :|| | ||| ||:|
 Db 657 LLVNSIANFFRLLSQGGGKIKVEILKILSNFAENPDMLKKLLGTQVPSSFSSLYNSYVES 716
 Qy 258 EVILKLLVIFENINDNFKWEENEPTQNQFGEGLFFFLLKEFQVCADKXLGIESHHDFLVK 317
 |::: | :|| | || : | :| :|||: || | : :||| ||
 Db 717 EILINALTLFEIIFDNLRAEVF--NNREFNKGSLFYLCCTTSGVCVKKIRALANHHDLLVK 774
 Qy 318 VKVGKFMAK 326
 ||| | : |
 Db 775 VKVIKLVNK 783

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 Job time : 72.2668 secs